

DOCUMENT RESUME

ED 213 112

EA 014 413

AUTHOR Lyons, Raymond F.
TITLE The Organisation of Education in Remote Rural Areas.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France). International Inst. for Educational Planning.
PUB DATE 81
NOTE 298p.
AVAILABLE FROM IIEP Publications, International Institute for Educational Planning, 7-9, rue Eugene-Delacroix, 75016 Paris, FRANCE (Order No. R.56; 15.00 francs).
EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Administrator Responsibility; Adult Education; Decentralization; Decision Making; Delivery Systems; Developing Nations; Educational Resources; Elementary Secondary Education; Foreign Countries; *Government School Relationship; Instructional Materials; Nonformal Education; *Organizational Effectiveness; Poverty Areas; *Rural Areas; *Rural Education; *School Administration; School Districts; School Supervision; Supervisors
IDENTIFIERS *Nepal; *Sudan

ABSTRACT

Using the findings of two studies carried out in Nepal and Sudan, this report examines the methods and the problems of organizing formal and nonformal education in rural areas. The main aims of the two studies were to collect information on education and administrative performance at district and, where relevant, at regional and national levels, and to analyze that information so as to show how the organizational aspects of education at the local level might be improved. The issues involved in the formulation and implementation of local plans, as well as the respective roles of the national and district authorities, the community, and the school, are discussed as aspects of a decentralized approach to the management of education. The report illustrates the need for district levels of educational administrative systems to play more active parts in the elaboration of programs adapted closely to local needs. This will lead, conclude the authors, to increased relevance of the overall educational system. (Author/MLF)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED213112

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL IN MICROFORM ONLY
HAS BEEN GRANTED BY

J. Hall

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

EA 014 443

The organisation of education in remote rural areas

An IIEP research project directed by
Raymond F. Lyons

Paris 1981

International Institute for Educational Planning

Composition and make-up by
The International Institute for Educational Planning
7-9 rue Eugène-Delacroix, 75016 Paris
Printed in France by Hemmerlé Petit et Cie, Paris

© Unesco 1981

Preface

This report on the organisation of education at district level in Nepal and Sudan represents an exploratory study, in co-operation with national specialists, on the organisational aspects of the implementation of government decisions on education in the most difficult conditions. The choice of this topic reflects the growing preoccupation of Unesco Member States with the difficulties experienced by administration in organising the communication of information necessary for planning and for translating decisions into reality.

In undertaking these studies, the IIEP was influenced by the consideration that countries of the developing world have made a major effort during the past two decades to expand their educational systems and introduce reforms, but administration, its staffing and procedures, has not kept pace with the new requirements. This report follows studies of primary school inspection, the school map, regional disparities and training needs for administration made by the Institute. It is a modest attempt to analyse the real working of the administration at the local level in response to Government decisions and regulations. It is hoped that it will contribute to the discussion and to methods of diagnosis of local administration and thus help clarify the issues involved in the formulation and sharing of tasks as between the centre, the district, the community, the school and other sub-national levels as part of an appropriately decentralised approach to the management of education.

The two studies have been directed by Mr. Raymond Lyons, Senior Programme Officer of the Institute, with the co-operation of Mr. M. Gutelman and Mr. A. C. R. Wheeler, Consultants.

Finally, it is a pleasure to acknowledge the support, both financial and intellectual, which the Overseas Development Administration of the United Kingdom has given to this project as part of the United Kingdom's contribution to the work of the IIEP. I should also like to express our gratitude for the invaluable support and co-operation which the Institute has been given by the authorities and experts of Nepal and Sudan and from

Preface

many experts of other countries during the preparation and execution of the work.

Michel Debeauvais
Director, IIEP

Contents

Introduction 9

The organisation of education in the Sankhuwa Sabha
District of Nepal 19

The organisation of education in the New Halfa District
of the Sudan 197

Introduction

In recent years the performance of administration has become a subject of interest and pre-occupation in many Unesco Member States. Planning at the central level may not, it is argued for a number of reasons, have sufficient knowledge built into it by the administration to enable it to provide a fully rational framework for decision making. Arrangements made by administration at the central level may not constitute an adequate and competent basis for the implementation of decisions throughout the far-flung public educational system. Above all perhaps, administration may be too rigid and parochial. It may not sufficiently communicate within itself between its different levels or with other parts of the administration, or with the public in the sense of informing, discussing and influencing attitudes and behaviour in directions favourable to successful change.

These considerations have led the Institute to give greater attention to planning at sub-national levels, as for example its work on school location (school map) and the primary school inspectorate. More recently, at a time when the Institute is undertaking a growing amount of work and thought on micro-planning, the studies on Nepal and Sudan have been undertaken to throw some new light on the problems of micro-administration.

The distinction between these two intermeshed fields of activity can be said to follow from the consideration that the scope of administration is wider than that of planning. Micro-planning may be defined as the analysis of all that is happening to education at the local level and taking account of it in planning at the national and other levels, including the local. Micro-administration can be said to include micro-planning, just as in the national setting macro-planning is part of macro-administration.

Essentially micro-administration may be said to incorporate three main activities at the local and institutional levels. It can contribute to national decision making and planning concerning education. It implements national decisions at the

local level as regards the supply of human and physical resources and administrative services for the schools. It is accountable at the local level. As an introduction to the studies on Nepal and Sudan, we will discuss each of these activities in somewhat greater depth.

1. Planning

Planning personnel like to see themselves as the most able of the staff officers of Ministries of Education, advising Ministers through their creative contributions. But they may in practice be merely technicians within the administration. Planning personnel make proposals for alternative courses of action and indicate their consequences and cost implications. But they may not decide or even directly contribute to decisions about policy. These are political functions. Planning personnel may not determine the final form in which plans are submitted for policy decision since this is a function of high administration. It would seem that planning personnel are wedded, for better or for worse, to the administration and that proposals which are not consistent with political realities and the operation of professional and administrative pressure groups within the Ministry of Education will not necessarily be decided upon favourably. It would follow, therefore, that planners can improve the relevance and effectiveness of their work within a framework that is determined politically and administratively, it being understood that there are also technical and professional determinants of its efficiency.

The theoretical arguments for improved study of reality at the local level, for micro-planning, stem from decision making as well as from organisations theory. It may be said that the relevant elements of decision theory are concerned with ways in which the 'best' decisions can be taken in conditions of incomplete information. In principle, the more complex a system, the more people who make decisions about actions to be taken affecting the less central parts of it are likely to produce unbalanced decisions since their view will be distorted by facts which come within their more immediate range of vision. This distortion is likely to be reinforced by values and premises which reflect the maximisation of advantages to the centrally lying areas vis-à-vis the periphery. Factors affecting the taking of decisions including effects of haste, imprecision of objectives, activities of pressure groups, will also tend to make 'satisfactory' decisions taken at the centre not fully relevant to needs of the regions and districts.

It therefore seems that as far as decision making is concerned the counterpart of micro-planning is that there should be a change of attitude by politicians and administrators so that the application of research and intelligence to the prob-

lems of providing education in the most disadvantaged areas of the country becomes part of the appraisal on which decision making is based. This means that the high executives at the centre, who provide the energy and direction for the system, should wish to know, from planning personnel 'what is happening' at the local and other levels and incorporate that knowledge in their decision making.

It may be convenient to consider the local or district level as the heart of the matter of micro-planning, as the base for analysing what is happening in the district and the schools as regards demand for and supply of education. In this case it would seem necessary to examine whether the administrative dispositions concerning the sharing of costs as between the Government and the districts, as well as arrangements for the control of education, allow a contribution to effective planning to be prepared at the local level to improve education and in what ways local communities can participate.

The contribution of local educational administration to national decision making and planning thus poses a number of administrative and technical issues at the national and local levels. One of these is whether the district administrations are capable of making a thorough diagnosis of the situation of education, within the community and the educational system, whether the reports from inspectors and other information about schools are well analysed. It is not a matter of increasing the amount of paper which moves from the schools to the district administration and thence, in part, beyond. Rather it is necessary to analyse communications and reporting in a detailed way in an upwards and downwards sense as concerns the district, and in particular, to study how school administrations and district officers are organised, and personnel trained, to prepare reports and documents relevant to planning. The provision by local administration of analysed diagnostic materials on the various problems of educational development also raises questions of the collection and tabulation of basic data. By enlarging the information base available to the national and sub-national authorities, the district administration poses the question of whether the national authorities can within their planning provide resources to enable new steps to be taken to help district administration improve education.

The second theoretical aspect concerning micro-administration concerns the organisation of planning work with bureaucratic organisation so as to allow the local people a greater hand in management of education. This is the issue of decentralisation, the apportioning of planning responsibilities as between the centre and the district. The main points of organisation as between the national Ministry, province, district and so on, vary according to the matters which are being organised and the division of responsibility. But clearly, as these two

studies indicated, there seems to be advantage in local sharing of responsibility in all cases where local people provide a share of the resources involved, and in some situations where there are important inputs from outside. This is particularly the case as regards the planning of non-formal education which lends itself with difficulty to any overall planning and direction from central or state authorities.

2. Implementation of decisions at local level

Any consideration of how the performance of the educational system might be improved at local level begins with thinking about the relationship between planning and implementation. If plans are to be 'realistic' they should be feasible without causing major disruption within the system, and their implementation should be the complete accomplishment of that which has been planned. Feasibility implies that demand of local people for education has been studied and that the local administration has made arrangements so that the specific attitudes of local people may be taken into account. Feasibility means also that the objectives for the teaching/learning situation, namely what is to be learned and taught, how the teachers are to be qualified to teach, and the resources which they will have at their disposal to do so, are realisable. Feasibility implies that planning personnel have looked at the implementation of plans in order to see whether, given the specific demand and supply facts, they can be realised in time and in a spatial, territorial sense.

Observation and evaluation of the behaviour of a micro-system in a planning and management sense can begin with implementation as a retroactive assessment of feasibility. The diagnosis of implementation covers the supply of resources and of administrative services. In a very specific way it may be useful as a guide to the working of administration at the district level to undertake discrepancy analysis of the supply situation. This means, first, the extent to which supply of educational resources corresponds to government objectives, and second, how the district administration of education in following rules and regulations contributes, or could do more to ensure achievement of the government's aims.

Within the organisational activities which may be covered a distinction may be made between the supply of human and real resources and administrative services respectively. Among the former may be mentioned supply and maintenance of buildings, supply, use and in-service training of teachers, books, materials, and teachers' guides, equipment and visual aids. Administrative services can be divided as between planning and development, professional and administrative inspection and supervision of the schools, maintenance activities concerning finance, payments and the implementation of regulations, and public relations.

A description of the functioning of educational administration proceeds from the hypothesis that the performance of the administrators, whether 'good' or 'bad', is conditioned by a number of factors which affect it. These include the functions of the administrators and how they are grouped within the structure, the ways in which information is collected and transmitted, the formal and informal decision-making arrangements, frictions and impediments within the administrative process and social factors. It is possible to distinguish between factors affecting performance about which local administration can do nothing, those where responsibility for change is shared between the district education authorities and other bodies, and those which are entirely under the control of the district authorities. It is necessary to study these three groups. Perhaps in the present context the latter presents the greatest interest as far as the discrepancy between the real and required behaviour of administration is concerned.

It may not be the case that discrepancy analysis necessarily results in a list of faults which can only lead to gloom and dejection. There are successes as well as failures. It represents, as an assessment of the real functioning of micro-administration, in the context of great poverty and under-development, one of the pre-requisites for its reform.

3. Accountability of administration at the local level

The accountability of district administration to which the Directors and staff of institutions are in turn mainly accountable, can be defined in several ways, and each of them can be the subject for innovation. The first, which is characteristic of the classic Weberian model, is upwards to regional and national administration. The second is accountability to the local population and its elected or nominated representative bodies. The third is accountability in a wider sense to local administration and to the various line representative bodies which are part of it.

Accountability of the district administration may be summarised in most cases by reference to whether the district officer and his staff, in doing what the Government wants to be done, obey orders or whether they do not, whether public funds are properly spent. A more refined notion of accountability can be derived from a study of the content, the quality, of execution of orders, and finally of the orders themselves. Does the District Officer provide accurate statistics? Does he ensure that the inspection of schools is adequately carried out, that reports on schools are read, filed and followed up? Are teachers not only paid but paid on time? Finally, it may be the case that the district officer should be more fully accountable for matters on which he may not hitherto have been so held.

For example, the District Officer might be asked to monitor and evaluate progress of implementation in new ways. He might be accountable for success in obtaining significant changes in the behaviour of the teachers or of the local population.

A second level of accountability concerns the way in which the district education authorities inform the local people about what the Government and staff of the district office are trying to do as regards the provision of education, giving reasons for action taken, listening to and noting the views of local people and answering their questions. In this regard, the local educational administration may also report to committees made up of representatives of local or district councils which are responsible to the councils for reporting on educational matters. In both respects it is important to judge whether the local people or their representatives are really involved in consultation or in planning and implementation of educational support or whether their contacts with the district education authorities are of a formal kind involving no significant co-operation.

A third level of accountability is of the educational sector at the district level in respect of other forms of development activity and of district administration. This is to say that education can in principle render certain services to other development activities in formal and non-formal education, but may not necessarily do so. Reciprocally other services can contribute to the functioning of the educational system. This is an argument for the analysis of the effectiveness of the contribution of education to economic and social development at the district or, possibly, at some higher administrative level, which from the standpoint of co-ordination is found convenient. There is also the problem of accountability of the district education officer to the Chief District Officer. This raises some interesting questions of the role of the Chief District Officer, who represents the Ministry of the Interior in controlling, or not, the activities of district officers who represent other Ministries.

4. Main results of the studies

The main aims of the two studies were to collect information on education and the performance by administration of its main functions at district, and where relevant at regional and national levels, and to diagnose that information so as to show how the organisational aspects of education at the local level might be analysed. A more detailed description of functions and the methodology employed to study them is to be found in the introduction to the Sankhuwa Sabha report.

The studies show that given the generally extreme poverty and isolation of the two districts, the successful organisation of education is dependent on wider and broader based efforts by

the authorities to promote economic as well as social development. The studies were the result of achieving a more limited aim, namely to examine the functioning of administration at the local level within the context of objectives for education as stated by the Government. Consequently they showed implicitly that a number of other objectives, for incomes, employment, production, health and welfare, and communications needed to be met if the government was satisfactorily to achieve its educational targets. But consideration of the development constraints on education was not made explicit.

The district administration of education faces the task of taking measures to compensate for the lack of resources of central government with which it could help the most disadvantaged areas. Despite significant progress essentially in the three R's, primary education is not yet universal, particularly for girls. A substantial proportion of the pupils drop out or repeat. There are many untrained teachers. There is a shortage of secondary schools. Buildings and furniture, which are the responsibility of local communities, are inadequate. Books, teachers' guides, equipment and visual aids are in short supply. There has not yet been time to train principals, inspectors and administrators in efficient administration, and the latter tend to spend only two to three years in each district. There are insufficient inspectors, mostly inadequately trained, many principals are left to their own devices and the schools not often visited.

Analysis of ways in which district administration can help promote more complete achievement of the Government's objectives shows that the structure of the educational administrative apparatus has become larger and more complex, thus increasing the need for reporting between levels and particularly for new types of communication upwards as well as downwards. The pyramidal structure has grown up on the basis of formal communication transmitting instructions downwards. It is less effective as a means of transmission of 'feedback' and analysis from the schools and the districts to the centre. The frequency of reporting upwards is at present too high and from the district not analytical enough. Forms, methods of work, filing, reporting (monitoring), follow-up should be reviewed as part of a more systematic use of organisation and methods for improved contributions by the district administration to planning and evaluation of progress of plans.

At present government finance for education is mainly concentrated in whole or part of teachers' salaries. Unless it is decided to devote a higher proportion of public finance to support education in the disadvantaged areas, part of the future expansion of education in those areas will have to be paid for by the local people or as a result of a reduction in unit costs. Hence the district administration will have to pay particular

attention to the study of cost reduction through such techniques as improved utilisation of teachers, increasing use of double shifts and better control of teachers' attendance.

It is also necessary that district administration should take steps to promote the co-operation of all people with skill and goodwill in the operation of the school system. Minimum standards should be set for buildings and furniture and guidance given on construction. The district administration should discriminate in the use of available funds in favour of the poorer communities who cannot build or maintain their schools.

The district administration is dependent in the longer term on the supply of trained teachers who come out of teacher-training colleges after participating in programmes which have been organised at the national level. It is therefore important that the Ministry should produce plans which are adequate as regards specific ethnic needs, requirements of women teachers and the special needs for teachers in rural districts. The district administration is required to improve the efficiency of its allocation of teachers and principals to the schools. In addition, the district administration with the help of the teacher-training colleges should produce a comprehensive plan for teacher re-training and upgrading, for untrained primary teachers and those at secondary level who are required to teach mathematics, science, modern languages and vocational subjects. Training should be local in order to reduce travel costs and improve morale. Heads, skilled teachers, members of the inspectorate and district administration as well as suitable retired people should provide substantial and suitable in-service courses, certified and recognised by the authorities so that promotion and increased salaries are involved where that is necessary.

The district administration should use the work of its inspectors as an instrument for the monitoring and reporting on the school system and for improving the teaching/learning process in the schools. Progress needs to be made in arrangements for recruiting, training and promoting inspectors. The number of inspectors and possibilities of transport are at present a constraint on their efficient performance of reporting tasks. The administrative follow-up as concerns management matters needs to be improved also since district officers do not always succeed in reading, acting upon and filing reports efficiently.

As regards pedagogical support of the teachers, the district administration should seek to employ all available personnel to help the efforts of inspectors, who should be qualified to assess and guide the work of teachers. Subject inspectors should be encouraged to spend more of their time in the schools rather than in regional or national headquarters. Inspectors should be given responsibility for a cluster of schools and make in-depth periodic reports on each of them. Similarly schools may be organised in clusters so that good principals and teachers,

in co-operation with the inspectors, can give guidance to other schools in their cluster. Competitions, model schools and teaching resource centres should be organised. Heads should receive training so that they can supervise pedagogical work in their schools. At the same time inspectors could be relieved of certain of their existing administrative checking tasks if local people could participate in school management.

Training could be given by the inspectors in the production of visual aids in the schools. In addition, arrangements for the production nationally or regionally, and distribution to and use in the schools in the district of visual aids, books and materials needs to be reviewed so that their supply is improved.

The district administration should acquire new methods of working with the local population. Although the views of parents on education tend to be narrow and confined to what appears directly useful to them their views should be sought and discussed. The administration should fully support headmasters in fund-raising and eliciting other support for the school.

It is desirable that the schools should be better integrated in the community. Parents Councils and School Committees should be used to explain the usefulness of science and vocational education. Gardening and nutrition centres should be set up to support the work of the schools and health activities should be integrated with the schools. The functions of the School Co-operation Committees and the District Education Committee should be reviewed so that they have greater control of such matters as payments, transfer of teachers, attendance of teachers and heads and participate in visits to the schools and discussions with inspectors about the diversification of the school curriculum to meet local needs.

The district administration of education should play a useful part in the formulation and implementation of measures to provide non-formal education. This is an important problem since it involves the administration in measures to increase co-operative production and provide education of different types so that poverty and illiteracy in disadvantaged areas can be ended.

These findings mean that the district administration of education must take a more active part in elaborating and implementing education's role in the economic and social development of disadvantaged areas. It should be seen, as suggested in the first part of this paper, as responsible, accountable and hence as a contributor to and initiator of desired change in the provision of education.

The organisation of education in the Sankhuwa Sabha District of Nepal

N.N. Singh, Joint Secretary, Planning
I.P. Upadhyay, Under Secretary, Programming
S.R. Joshi, Section Officer

from the Ministry of Education, Kathmandu

B.K. Shrestha, Convenor

Task Force of the Small Area Development Programme

R.F. Lyons, Senior Programme Officer
M. Gutelman, Consultant

from the IIEP

Project Co-ordinator:

P.K. Kasaju,
*Chief, Centre for Educational Research,
Innovation and Development, Kathmandu*

Contents

Introduction: Content and methodology of the report . . .	21
I. The development of education and administration: an overview	29
II. Basic material conditions of education	67
III. Management of the teaching force	99
IV. Management of the supply of basic materials for education	129
V. Management of inspection	139
VI. Nonformal education	165
VII. Conclusions and recommendations	177
Bibliography	193

Introduction : content and methodology of the report

The quality of an educational product cannot be assessed in terms of one single factor. Qualitative results of the educational process, which are sometimes referred to as the final results of education are in fact affected by a complex set of parameters. Among these one may mention: the amount of information assimilated by the pupil, the relevance of that information to the pupil's needs, the capacity to master an adequate reasoning process and the ability to develop a propensity for learning. In their turn, the factors which affect this set of parameters are neither simple nor easy to define. The content of education in an ideological sense, the pedagogical methods involved in teaching, the number and quality of the teachers available and the organisation of education in its administrative and financial aspects can be considered as the more important of the determinants involved. At the least, it does not seem possible to improve the final results of education in a given country without dealing with these determinants.

The central object of this report is the study of the specific incidence of organisation, the deliberate creation and arrangements of tasks, on the final results of formal and non-formal education in remote rural areas. The fundamental hypothesis underlying this work is that organisation may be considered as one variable which in part determines the quality of education and which can be isolated for purposes of study. The fact that there is a possibility of isolating organisation does not, of course, mean that its effects are independent of those of the other determining factors involved. In fact, we will have to study the interconnections between the organisational determinant and certain of the other factors involved. But in doing so, we will bear in mind that our central problem will be the study of organisation. For example, we will show that the authorities are very conscious of the fact that the pedagogical aspect of the use of science materials for teaching is very important and they have taken measures to improve the supply, but we shall insist on the fact that pedagogy as it concerns the use of materials is

largely determined by organisational factors relating to the training and conditions of work of teachers.

The principles and general rules under which organisations produce results have been the subject of a great deal of writing. This report will not be primarily concerned with the general properties and structures under which organisation produces information flows and operates a decision making and implementing process. While these matters must obviously be referred to, the main aim will be to study specifically how organisation of education can be adapted to a concrete rural situation with certain characteristics in order to answer such questions as: what is the best way to improve the organisation of education in a mountainous country with difficult communications, where population is widely scattered and where certain specific political, economic, cultural and religious conditions prevail? Thus, our objective is not to study the formal organisation of education per se, but rather to study the role and effects of organisation at the school, village and district level in terms of education and its improvement. This basic aim has determined the operational organisation of the study as well as its geographical and institutional scope.

This is a study conducted in one district of Nepal, a micro study directed towards the analysis of the organisation of supply of resources for education. It is necessarily a partial study in that it will proceed from the fundamental hypothesis that demand for education exists. This hypothesis was confirmed by enquiries carried out at the market and family levels; it was not thoroughly explored and qualified by surveys and it is desirable that this micro study of supply should in the future be accompanied by study of the interaction, as it affects administration, between supply and demand.

The first step in the study will consist in the diagnosis of the state of education at the school level. The analysis will be undertaken, with the use of classical indicators and ratios, in order to measure the quantity and levels of education provided in a defined area during a given period of time. For example, enrolment, cohort analysis, drop out, etc. Since the resources of the research team were limited, the scope of the enquiries has been confined to the systematic analysis of the state of primary, lower secondary and secondary education at the SADP (small area development programme) district level, in 9 out of 41 panchayats in the district, with reference where appropriate to the national picture. The district chosen for the study, in agreement with H.M. Ministry of Education and the Ministry of Home Affairs and Panchayats was the Sankhuwa-Sabha district in the Eastern Region of the country. It is on the basis of an analysis of the state of education at the district level that we will approach the study of the organisational aspects of education.

Since our objective is mainly to study the results of organisation of the school system, we will be more interested in

the study of the process than in the systematic examination of the whole structure of the administrative system. Naturally we will provide descriptive elements of the administrative structure, but we will not study it according to the classical framework, starting from the top and proceeding to the bottom with a thorough formal discussion of the problems of decentralisation, decision centres, information channels and so on. We will focus on structural problems of organisation only when they have a clearly defined effect on the process; for example, when it is obvious that the structure itself obstructs, hampers or distorts a given process or when it is clear that certain organisational tasks cannot be carried out because of the lack of proper structures.

In the same spirit, we shall not study and describe the national and regional levels of the administrative hierarchy as distinct elements of the national structure, but only in so far as problems of reorganisation of education at the school or district levels find their origin or their possible solution at those hierarchical levels. The same approach has been followed in the case of the different institutions, for example, the Faculty of Education of Tribhuvan (Kathmandu) University, the activities of which are connected with the administrative process of education.

For convenience of analysis we have identified four main functions which are required to be performed by the organisational machinery for formal education. In addition, we have analysed the problems involved in organising non-formal education separately because of their very specific characteristics. The first of the main organisational functions that administration of formal education in a district such as Sankhuwa Sabha must fulfil is the construction and maintenance of schools. This function, which is studied in the first part of the report, involves social, financial and administrative aspects which require careful analysis.

The second organisational function is the production and management of an adequate number of competent teachers. This function involves the pre-service training of teachers for service in the district, as part of the quantitative and qualitative planning of teacher training within the national framework, in-service training to make good specific weaknesses in the district teaching force, measures to provide pedagogical evaluation and support in the teaching process, notably through the work of inspectors and heads of institutions, as well as financial planning and implementation.

The third function of organisation concerns the production and distribution of materials needed for the day-to-day activities of education. This includes pedagogical materials, such as equipment for the teaching of vocational subjects and science, as well as books, exercise books, teaching units, teaching guides, visual aids, radios and so on. This function involves physical and material aspects, as well as commercial, financial and administrative problems.

The fourth organisational function which must be carried out by the administration is *inspection of the educational situation* in regard to two main aspects: inspection as pedagogical support for teachers and inspection for the formulation and monitoring of policy decisions for educational planning.

The essential aim of this report is to study how these four specific functions are carried out at the district level and to try to determine what are the organisational reasons, whatever the level of their origin may be, for successes or failures which have been identified, practices which may or may not be appropriate and procedures which contribute in a positive or negative way to the final results of education. This aim has led us to divide the study of the administration of formal education into five parts, one being a general overview of the educational system and each of the other four corresponding to one of the organisational functions defined above.

This report is primarily aimed at problems of organising the supply of resources for formal education, given that the Government has adopted objectives for school education, how can they be most effectively achieved? This report does not aim to analyse the problems of supply as concern non-formal education. The questions involved in the organisation of non-formal education are quite different, because of the fact that non-formal education must be directed towards people who are already taking part in the social and economic life of the country. The content of such education must vary greatly in taking account of the diversity of the needs of adults who are seeking education and because the administrative bodies providing non-formal education are to be found among a number of administrations and institutions whose principal tasks are not generally or mainly educational. Although there are of course local problems of adult education, most of the solutions cannot be found at local level. They depend in fact on political decisions about the scope of adult education and its general framework and organisation at the national level. It is for this reason that after a description of the local situation of adult education, only general suggestions are made about its possible organisation, given the fact that the study has primarily a local scope.

The practical methodology employed in the study has been built up on the basis of the following elements:

(a) On the basis of direct observation of the situation of education in the schools and information from statistical sources and supervisors' reports - the four main functions mentioned above have been broken down into detailed sets of sub-functions or specific tasks which must be performed in order to ensure an adequate supply of education. For example, the supply of materials needed for education has been subdivided as between the supply of school material for the use of the teacher (teachers' guides, radios, etc.), supply of materials for the school (chalk,

educational posters, science equipment) and supply of materials for the pupils (books, pencils, etc.)

(b) The fulfilment of each of the detailed sub-functions has been observed from the triple standpoints of flow of materials and financial and administrative process, in order to determine the nature and the form of success or failure and/or bottlenecks. The criteria according to which the efficiency with which sub-functions have been carried out may be assessed according to the level of observation. From a general point of view, as seen by the higher authorities of H.M. Ministry of Education, the criteria are the objectives contained in the Fourth and Fifth Educational Plans. At a lower level, criteria of efficiency can also be found in the administrative rules published by the Ministry of Education in 1972 or in the application of common sense. For example, it is desirable that related tasks should be performed on time (books must be available when school begins and not two months later) and in a co-ordinated way.

(c) The next methodological step was to localise, within the administrative and organisational structure, the origins of failure and bottlenecks. In some cases, a single origin at a given level, whether school, district, regional or national administration, might be identified. In other cases, the cause of difficulty and discrepancy between objective and achievement was to be found in and shared by different organisational levels and the methodological work consisted in the analysis of the different elements involved in it.

(d) The last methodological step consisted in the elaboration of a synthesis of the problems which had been discovered and of the measures which might be taken to improve the situation.

In order to carry out this methodological approach in practice, we used the following investigation techniques:

(a) Direct observation of facts and processes: team members visited the schools in the district in order to ascertain facts regarding the pedagogical aspects as well as the material and managerial aspects of their work. The main working objective involved in the direct observation at the school level was to prepare a diagnosis of organisational problems. The same technique was employed at different levels and institutions within the administrative structure. In these cases, direct observation consisted in the examination of the working documents of the administration, in following the process involved in connection with them and in assessing what became of them, their use and usefulness. The working documents consulted ranged from statistical monthly reports from headmasters to summary reports prepared for the Ministry by the Eastern Regional Directorate including many reports and minutes, such as those of the District Education Committee at the district level.

(b) A second research technique employed by the team was to interview selected persons whose functions were important for our

purpose. These included teachers, headmasters, inspectors, District Education Officers and staff of the District Education Office, members of School Co-operation Committees and village and district panchayats, staff of the regional directorate, heads of division and staff at the Ministry of Education at Kathmandu, and members of many different institutions.

(c) Some reports were prepared by selected members of the administration, with the guidance of the research team, on specific problems in order to obtain an inside view of how these problems were seen by persons responsible for day-to-day organisational activities. For example, reports were prepared on communication problems at the district level, the system of accounting, primary and secondary inspection, etc.

(d) A few sample surveys were carried out, mainly in order to have the views of parents about the running of the schools and education in general.

(e) A great quantity of reference documents, ranging from budgets and statistical reports to case studies and university research reports have been consulted and used by the team (see the bibliography in Annex I).

(f) For practical purposes the research team built up a set of topic guidelines which helped members of the team to undertake their work in a systematic way.

The research was undertaken in two stages. The first stage was carried out in autumn 1976 when the main objectives for the localisation of the research project, the elaboration of the detailed terms of reference, the diagnosis of the organisational problems at the school level and the organisation of arrangements for the work of the research team took place. The second part of the research took place in autumn 1977. The main objective was to make the diagnostic study and follow the research plan as described above. The third part of the work consists of the synthesis of materials and the elaboration of the report.

The result of this research has been to throw light on a set of organisational problems, some of which were not apparent at the first approach. The nature and scope of these problems is extremely diversified. Some find their origin in the orientation of national educational policy and are thus of very general scope. Others, on the other hand, are a consequence of a local misconception of work organisation. Between these two extremes lie a set of policy and organisational problems, the nature of which cannot always be determined with precision. In addition, some of these problems can be explained by reference to factors of an economic, social and cultural nature which obstruct the efficient organisation of work. In these circumstances, it is clear that some conclusions can only be made in general terms, whereas others are much more concrete and detailed. As far as non-formal education is concerned, the analysis showed that despite the important progress accomplished in recent years, the authorities

Introduction: Content and methodology of the report

are conscious of the lack of a general and well integrated policy. Proposals included in this report on this topic are thus mainly addressed to possible ways, based on an examination undertaken in one district in Nepal, in which policy for non-formal education may be formulated and how concretely adult education may be organised.

I. The development of education and administration : an overview

The object of this first part is to describe the educational situation in the Sankhuwa Sabha district within the general framework of education in the Kingdom of Nepal. Reference will be made to the administrative structure of education and to the effect of natural and cultural conditions in the district on administrative tasks. A historical analysis of the educational budget and considerations as to its future level show that the budget constitutes a relatively permanent and severe restraint on educational development which greatly influences administrative practice at the district level.

CHAPTER IA. EDUCATION IN NEPAL

1. Historical development

The process of development of education really began in Nepal only after the overthrow of the Rana regime in 1951. In that year, in the whole kingdom there were 8,500 children in primary schools, 1,600 in secondary schools and 250 in higher education. The number of primary schools was 321, but there were only 11 secondary schools and one institution of higher education: the Trichandra College. Only one per cent of the adult population was literate.

As from the early fifties, the educational profile of Nepal has considerably improved as a result of the strong educational aspirations of the local community. By 1971, a total of 7,256 primary schools with 450,000 pupils and 1,665 secondary schools (including lower secondary) with an enrolment of 100,000 pupils were operating in the whole of the kingdom. Likewise, higher education enrolment has risen to 19,000. Notwithstanding this remarkable progress in formal education, His Majesty's Government did not find the situation very happy because all these educational efforts were limited to quantitative expansion without much relevance to changing social and national needs and values. The establishment of various committees and commissions to re-orient the entire education system was indicative of the national concern with the state of things prevailing then. However, one consequence of the re-thinking of educational objectives was the establishment of multi-purpose schools which sought to re-orient secondary education towards vocational aims. But this was only a partial solution since the delivery mechanisms for education were also less than satisfactory.

At the school level, the situation looked rather different from what the statistical data above might suggest. Schools generally lacked trained and qualified teachers. Inadequacy of staff members was a frequent phenomenon. Salary scales for the same level of teachers were different and depended to a large extent on the financial capability of schools. All this had an

obvious impact on the teaching/learning process. Consequently the attrition rate was considerable while the teacher retention rate was very low. Although some progress was made in the organisation of education in the late sixties, it was only as from 1971 that a plan for the radical transformation of the overall education system and the administration was implemented.

The national education system plan

Following a series of discussions and consultations with national and international education experts, His Majesty's Government drew up a New Education System Plan (1971 - 76) with the main objective of gearing the entire education system to the overall development needs of the nation. It was in fact a major reform covering all the qualitative and quantitative aspects of education and including administrative structure.

According to the New System, primary education aims at imparting literacy to 6 - 8 age group children and consequently comprises the first three grades. The curricula at this level mainly cover the national language, social studies and arithmetic. Following a Royal Proclamation in 1975 on the eve of the coronation of His Majesty King Birendra Bir Bikram Shah Dev, instruction at this level was made free. In 25 remote districts, of which Sankhuwa Sabha is one, primary text books are provided free under a Unicef sponsored programme. In the remaining 50 districts, 15% of primary children coming from disadvantaged families receive books free which others have to pay 25 Rupees (\$2.00) per annum to buy. School Leaving Certificate graduation is prescribed as a minimum qualification requirement for a primary teacher.

Lower secondary education with emphasis on the development of character and appropriate attitudes towards manual labour among 9 - 12 age group children, covers four grades: 4 through 7. The courses at this level cover a wide range of subjects - languages, mathematics, science, social studies, physical education and pre-vocational subjects in grades 6 and 7. Tuition fees at this level have to be paid on a monthly basis and examination fees on a quarterly basis. The monthly fees are standardized as follows: 5 Rupees for Grade 4, 6 Rupees for Grade 5, and 7 and 8 Rupees for Grades 6 and 7 respectively, but urban schools may charge more by a certain percentage. Books are not supplied free and cost 40 - 45 Rupees per annum. The minimum requirement for a qualified lower secondary teacher is an intermediate certificate (2 years post-SLC course) of the Tribhuvan University or its equivalent. Generally a lower secondary school includes a primary unit within its fold.

Secondary education comprises Grades 8 to 10 and branches out in three main streams - general, vocational and Sanskrit. Vocational courses are obligatory for all students irrespective of the stream they follow. Twenty per cent of instructional time in general and Sanskrit schools and 40 per cent in vocational schools is invariably devoted to the teaching of vocational subjects.

Standardised tuition fees are as follows: 9 Rupees for Grade 8 and 10 and 11 Rupees for Grades 9 and 10 respectively. Urban schools may charge more but not exceeding a prescribed limit. Generally a secondary school does not exist as an independent unit but has a lower secondary school within its fold. Books cost 50 - 60 Rupees per annum. Of the 35 vocational subjects included in the NESP document, 15 are being currently offered. Further introduction of the remaining vocational subjects will depend on teacher availability and demand for the subject by schools.

A special effort has been made to improve the number and qualifications of the teaching force. The number of teachers has increased substantially and progress has been made in pre-service and in-service training of teachers so that the proportion of untrained teachers, which remains large, has been reduced somewhat in recent years.

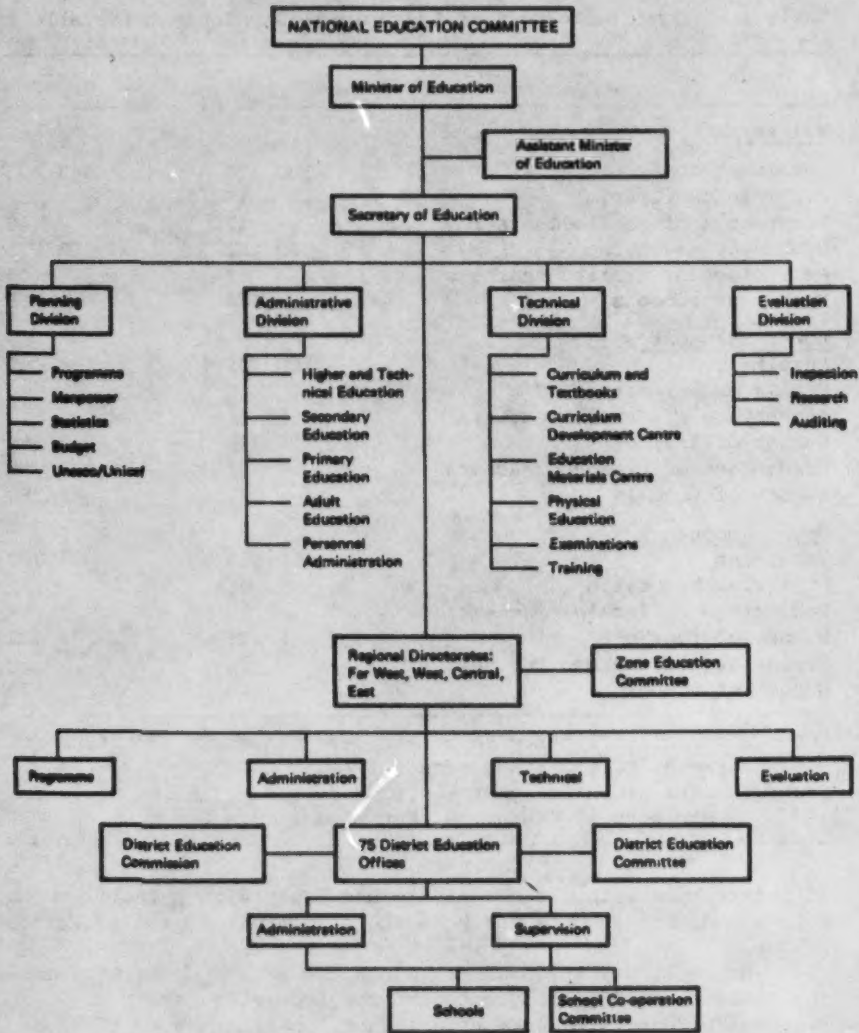
As a result of the implementation of the NESP there was, especially for the free primary school, a boost in education throughout the country. The main indicators showing progress at national level are given in Table 1.

2. The administration of education in the kingdom

The NESP contains provisions for the establishment of an operational organisation to manage education. An organigramme of the administrative structure of the educational system appears in Chart 1. The National Education Committee (NEC) was set up in 1971 to formulate policies and directives on policy implementation. It works under the chairmanship of the Honourable Minister of Education with representation from the National Planning Commission, the Ministry of Education and Tribhuvan University. The NEC has a full-fledged secretariat of its own and a research wing called the Centre for Educational Research, Innovation and Development.

The Ministry of Education has been restructured into four main bodies each with well defined duties and responsibilities. The Planning Division is entrusted with the task of formulating annual programmes in keeping with the policy guidelines given by the NEC. It sets targets to be achieved by field offices and evaluates their performance. It has a manpower cum statistics section to assist in making different projections and a well-knit budget section for the financing of education. The Technical Division comprises curriculum and textbook section, teacher training, examinations and physical education sections, together with two distinct bodies, one called the Curriculum Development Centre and the other the Janak Educational Materials Centre. The Evaluation Division is mainly concerned with the school supervision system. It conducts training and orientation programmes for the supervisors and is also responsible for the administration of field offices. The Administration Division looks after general

The development of education and administration: an overview



Source: Ministry of Education

CHART 1. *Administrative structure of the education system.*

Table 1. Some Indicators of Educational Development (Nepal)

	1972	1976
<u>Primary</u>		
Enrolment	300 376	643 835
Pupil/Teacher ratio	15	31
Percentage of female teachers	17	20
Number of teachers	20 467	20 775
Percentage of trained teachers	29	39
Number of schools	7 634	8 768
<u>Lower Secondary</u>		
Enrolment	166 255	188 688
Pupil/Teacher ratio	50	24
Percentage of female teachers	16	19
Number of teachers	3 349	7 856
Percentage of trained teachers	21	38
Number of schools	677	2 289
<u>Upper Secondary</u>		
Enrolment	56 612	74 060
Pupil/Teacher ratio	20	22
Percentage of female teachers	18	18
Number of teachers	2 825	3 439
Percentage of trained teachers	18	50
Number of schools	494	520

Note: In 1951 enrolments in primary and secondary education were 8,500 and 1,600 respectively.

Source: Data prepared by Statistics Section, Planning Division, Ministry of Education, Kathmandu.

administration within the Ministry and deals with primary, secondary and higher education, including scholarships, and adult education.

Since it was intended to launch the NESP on a massive scale, the setting up of field offices became imperative and four Regional Directorates were established, one in each of the four development regions of the kingdom. These Directorates were empowered to implement the entire educational programmes according to NESP aims and objectives. The Directorates too, are divided into four main bodies conforming exactly to the divisions made in the Ministry of Education, i.e. Planning, Technical Evaluation and Administration. This was done to facilitate co-ordination between the work done at regional and central levels. The regional office also serves as feed-back to different programming and policy-making organs in the Ministry. The Regional Directorate

is headed by a first class gazetted officer and to it are delegated all the powers of the Secretary of Education in the Ministry with the difference that in all that he does in the region he is answerable to the Secretary just as the Secretary, in his turn, is answerable to the Minister. This arrangement has worked well for a time but as educational activities are being increasingly expanded, there is a growing realisation that the existing structure of the directorate is not adequate to cope with the new emerging tasks and challenges. Ways are being sought to rectify this. Following the recommendations of the mid-term evaluation team constituted with the sole purpose of finding distortions, if any, in the process of implementing the NESP, it has been decided further to strengthen the regional offices. Accordingly, the directorates will henceforth be made fully capable of meeting the situation. Apart from the usual work done by them, provision is being made for an engineering unit to supervise school building and construction work. Subject supervisors are being appointed to do in-depth supervision of different subjects taught in the school. All this is to ensure the effectiveness of the regional office.

At the district level, gazetted second class district education officers are appointed to work with and under a District Education Committee chaired by the president of the district panchayat. The Chief District Officer is its ex-officio deputy chairman. The other members are drawn from different cross-sections of society, representing school teachers, panchayat workers, educationalists, social workers and intellectuals. The District Education Officer functions as member-secretary to the Committee. The District Office has primary and secondary school supervisors. Each supervisor is assigned a certain number of schools within his reach. The supervisor's functions are of two kinds, one to work towards improvement in the physical facilities of the school and the other to aid in the standardisation of education as per the NESP. An Education Service Commission under the District Education Committee has been formed to recruit teachers.

At the village or town level, there is a co-operation committee formed for every school. The committee consists of elected panchayat members or workers including normally the vice-chairman, social workers, teachers as well as guardians of the locality. It is supposed to provide the all important community support to the school.

The school co-operation committees when formed in the first year of the NESP were rather shy of responsibility. There was a general feeling that the government had taken over all the management of the school and hence that the people need not do anything about it. It is hoped by the authorities that this shyness will gradually wear off and that people will come to appreciate government efforts and be willing to participate in

the government machinery. The government has also invested the local committee with certain responsibilities and has delegated commensurate power to act. This has led to some adjustment in the pattern of administration at the village level. Similarly, readjustments in the power relations between the district and the region are being affected. Policy is towards the devolution of power from top down to the bottom. The emphasis is on greater participation and involvement of people in educational activities. A recent amendment to existing regulations allows for the delegation of more administrative and financial authority to school co-operation committees than hitherto. However, this delegation of authority will be subject to the extent to which the school co-operation committee is prepared to take over more than the normal share of the HMG contribution to a particular school.

CHAPTER IB. THE STATE OF EDUCATION IN THE SANKHUWA SABHA DISTRICT

1. Number of schools

Following the implementation of the NESP in the area in 1973, there has been appreciable development of education in the Sankhuwa Sabha district. The number of schools has changed as follows:

Table 2. Number of schools in Sankhuwa Sabha district

	Primary	Lower Secondary	Secondary
1973	91	6	5
1977	122	25	4

The most striking change has been in the number of lower secondary schools, but there is still a shortage of these schools if the planned objective for enrolment in lower secondary education, 40% of primary enrolment, is to be achieved. One secondary school has been shut since it could not function satisfactorily. As regards primary education, increased enrolment has been achieved more on account of the expansion of numbers in existing schools than the construction of new schools.

2. Enrolment

The progress of enrolment during the period 1973 to 1977 is shown in Table 3. These data indicate that there has been a rapid increase in enrolment in primary education. The participation ratio, measured by comparing enrolment with the estimated population aged 6 to 8 years was 69.8 per cent in 1976, i.e. above the national target level of 64 per cent in 1980, compared with 59.4 per cent in Nepal as a whole. The participation of girls in primary and lower secondary education in Sankhuwa Sabha dis-

trict also showed an increase, whereas in secondary education it did not. In 1976 it represented 28% of the age group 6 to 8 compared with a national average of 24.4%.

Table 3. Sankhuwa Sabha district school enrolment by level with percentage of girls' enrolment

	1973	(% girls)	1977	(% girls)
Primary (1 - 3)	3 965	(12.86)	9 627	(23.82)
Lower Secondary (4 - 7)	1 348	(11.65)	2 168	(14.53)
Upper Secondary (8 - 10)	402	(10.70)	775	(10.71)
Total (1 - 10)	5 715	(12.42)	12 570	(21.41)

Source: Statistics Section, Planning Division, Ministry of Education.

The data presented in Table 4 show that whereas the increase in primary enrolment has been remarkable, particularly as between 1976 and 1977, the achievement of the plan target of 40% of primary enrolment in lower secondary is proving hard to achieve. Lower secondary enrolment as a percentage of primary has declined. This ratio, however, is likely to improve from 1978 onwards when the impact of free primary education introduced in 1975 begins to influence the lower secondary enrolment. Even so, the declining proportion is indicative of the fact that a significant proportion of the children who finish the third grade of primary do not proceed to lower secondary schools. The secondary enrolment as a proportion of that of lower secondary is about 36 per cent, 4 percentage points below the national target. The problem of drop-out at this level is not as acute as in lower grades. However, girls' participation as a proportion of total secondary enrolment is at present at a low level when compared with that of the primary level.

Table 4. Proportion of primary, lower secondary and upper secondary enrolment in relation to the plan targets

Year	Primary as % of 6-8 year age group		Lower secondary as % of primary		Secondary as % of lower secondary	
	Total	Girls	Total	Girls	Total	Girls
1972	27.7	7.8	67.0	53.7	27.9	27.6
1973	28.5	9.7	34.0	30.8	29.8	27.4
1974	40.1	13.9	22.0	19.8	38.9	37.0
1975	43.8	15.3	31.7	23.0	32.7	32.8
1976	69.8	28.0	25.9	20.3	29.9	22.3
1977	89.1	41.7	22.5	13.7	35.7	26.3

A closer analysis of enrolment in primary education in the Sankhuwa Sabha district shows that the data are misleading in that there is a high rate of drop-out and repeating. In this district, with its high proportion of mountain panchayats, an analysis of the 1974 grade 1 cohort over three years showed that 50% of the pupils dropped out after the first year and 56% of the original grade 1 enrolment had left by the third year. The corresponding data for the 9 panchayats of Khandbari SADP¹ area were 44% and 53% respectively. More recent data show that as between 1976 and 1977, the proportion of those dropping out between grades 1 and 2 had risen, and was 52 per cent in both areas.

3. Over-age pupils and repeating

The normal age groups are 6 - 8 for primary pupils, 9 - 13 for lower secondary and 14 - 16 for upper secondary. Table 5 shows the general situation in the Sankhuwa Sabha district for the year 1976 - 1977.

Table 5. Over-age pupils in the Sankhuwa Sabha district
1976 - 1977

	Total pupils	Over-age pupils
Primary (grades 1 - 3)	7 445	3 932
Lower secondary (4 - 7)	1 927	505
Secondary (8 - 10)	576	228

From these data it appears that only 47.2%, 73.8% and 60% are in the grades which correspond to their normal age in primary, lower secondary and upper secondary education respectively. This general over-age situation is mainly due to geographical conditions and the location of schools - this subject will be analysed in the next part of the study. The situation is slightly better for girls, particularly in secondary education. In addition, there is a significant amount of grade repeating which has not been precisely measured in each of the three levels of school education.

1. Small Area Development Programme which comprises a special set of projects aimed at boosting development in some 20 areas. As far as education is concerned, special funds are available from these programmes for building and material improvement of schools.

CHAPTER IC. THE ADMINISTRATIVE ORGANISATION OF EDUCATION AT DISTRICT LEVEL

With the implementation of NESP in 1973, the District Education Officer under the supervision of the District Education Committee has shouldered responsibility for administration as well as for supervision of schools and teachers. The DEO is supposed to communicate the directives concerning education to the teachers and local communities and to listen to their grievances. Among the main duties of the DEO is the general management of education in his district. This includes the arduous task of mobilising manpower, physical and financial resources of the communities in order to build schools and guarantee their proper functioning as regards finance, teaching and other resources, and maintenance.

The Assistant District Education Officer assists the DEO in matters related to recruitment, salaries, transfer, promotion, dismissal of teachers and management of physical facilities, such as furniture, necessary equipment and buildings.

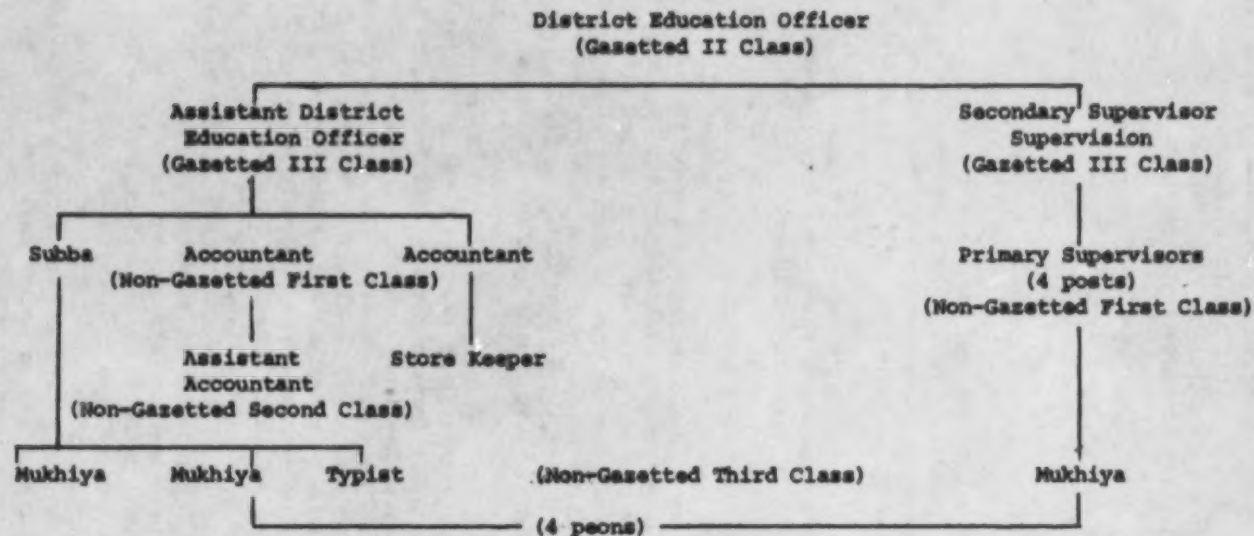
There is one secondary inspector and four primary inspectors. These personnel have to report to the DEO on how the total education programme in the school is being carried out. They are also supposed to exercise general responsibility for examinations and tabulate the results for the schools in their jurisdiction.

The finance section under the ADEO consists of two accountants and one sub-accountant.

1. Organisation of the District Education Office

The District Education Office handles its information and provides directives through four sections, namely, stores, accounts, administration and supervision. The stores deal with requests from the schools for educational materials (primary school books, science apparatus for lower secondary and secondary schools, material for vocational studies, charts, posters and necessary printed forms related to the education act and the regulations). Teachers must complete specified forms in order

Chart 2. Organigramme of educational administration



Note: Subba and Mukhiya are grades of clerk

to receive what they need. The stores make contact with local private agents who distribute text books for lower secondary and secondary grades, with the Regional Education Directorate as regards science materials, and the Janak Educational Materials Centre for primary text books according to requests made by teachers.

The second section is the accounts section. Basically this section is concerned with the payment of teachers' salaries and allowances, and the documents handled in this section refer to teachers' numbers, attendance and qualifications. Payment is made by the accounts section on a quarterly basis. The Headmaster is responsible for the distribution of the teachers' salaries and allowances and for keeping receipts. Money allocated is deposited in account payer cheques which require the signature of two teachers from a given school in order to be drawn. Money is deposited at the Chainpur and Khandbari branches of the Rastriya Baniya (National Commercial) Bank. The scholarship account is deposited in the same way and the Headmaster, on the recommendation of the school co-operation committee, distributes it to deserving students. The fund for stationery received at the rate of 12 Rupees per annum per primary pupil, is deposited by the District Office in the school's account, after review by the accounts section. The school then withdraws this amount when needed. Scholarships for pupils in remote areas are paid monthly. Accounts are held separately for primary, lower secondary and secondary schools. The accounting section is supposed to undertake audit work when misappropriation is reported.

The administrative section is concerned with requests from teachers for transfers, as well as their leave, promotion and further training. To decide upon these matters, the DEO normally consults the Assistant District Education Officer, the Supervisors and the Panchayat representatives. In the case of recruitment, promotion and dismissal of teachers, the Chief District Officer, who is responsible for all matters relating to the administration of the district, has to be consulted. Teachers are allowed transfers to places of their choice as far as is practicable. For the recruitment of teachers, applications are invited from SLC holders (secondary school graduates) for primary school posts, intermediate certificate holders for lower secondary schools and university graduates for secondary schools. Vacancies are advertised in the district and adjoining districts. In the case of science teachers, vacancies are announced in the national press also. To qualify as teachers, applicants are required to pass a written examination in Nepalese studies and teaching and an interview. This section also organises, in so far as finance permits, short term seminars in order to provide some in-service training for teachers, especially because of the lack of trained science teachers. It also deals with the panchayats and school co-operation committees with regard to all matters concerning development of schools, complaints

against teachers and setting up of new schools.

The supervision section is responsible for organising visits and inspections of schools, reporting to the District Education Officer about them and completing the specific forms or statistics/returns. These include data on the number of students, age, sex and grades, the number of teachers, the condition of physical facilities, and so on. The supervision section is required to make all arrangements for examinations and tabulate exam results. In addition, the section investigates all complaints and problems concerning schools or teachers. It participates in the implementation of short-term in-service training courses for teachers.

2. The headmaster as an administrator

The correspondent of the District Education Office at school level for all these matters is the Headmaster who is usually a teacher also and in the case of one teacher schools, the only teacher of the school. The Headmaster is the member secretary of the School Co-operation Committee. He is required to encourage its activities, namely, to stimulate enrolment, raise money for the school and solve the material problems of the school with the help of the community.

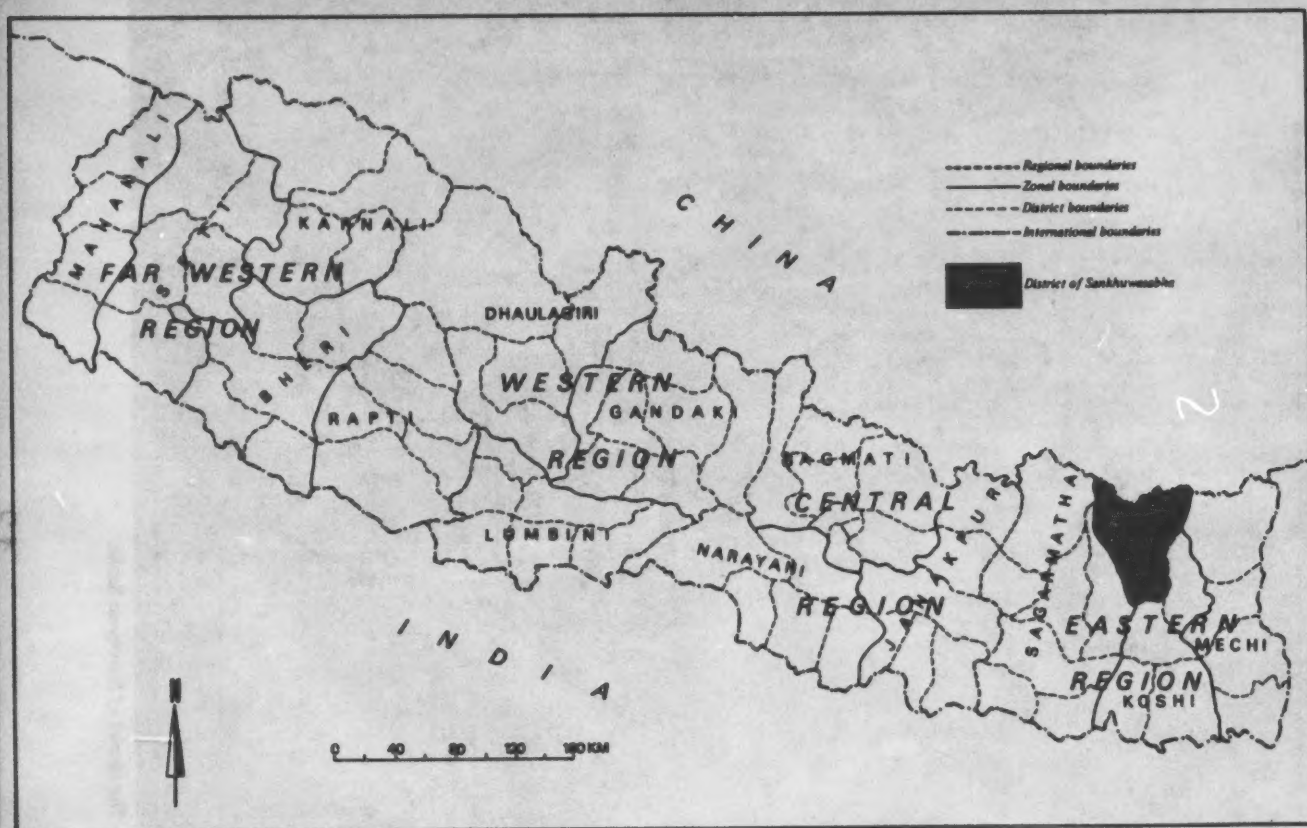
Usually the Headmaster has not followed specific training as a school administrator. Nevertheless, a seminar on administration for headmasters, to help them improve their ability to prepare accounts, organise activities with local people, and play a positive role as member secretary of the School Co-operation Committee had been proposed by the District Education Officer at the time of the team's visit.

1. The geographical and spatial context

A factor which, independently of other conditions affects the efficiency of administration, is the possibility of communicating between different levels of administration scattered over a given area. This possibility is conditioned by the difficulty of the terrain and the distribution of the population. In Sankhuwa Sabha district, these factors hamper the efficiency of the administration to a considerable extent.

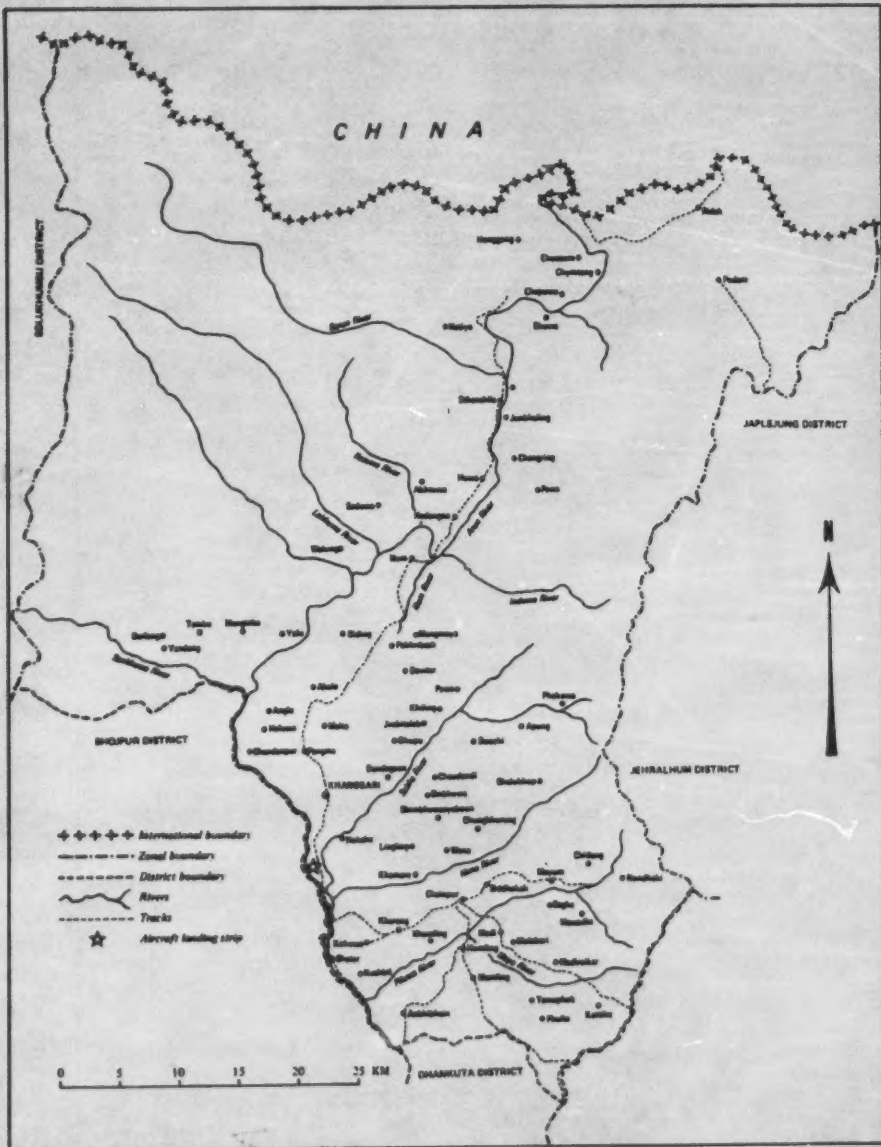
The name Sankhuwa Sabha is the result of the confluence of two rivers: the Sankhuwa in the west and the Sabha in the east. Both of these turbulent streams join the Arun river which rises in Tibet. The northern part of the district is world famous because it is the site of one of the highest peaks in the world, Mount Makalu (8,470 m./27,790 ft.). The topography of the district thus varies from a height of 1,700 ft. at Tumlingtar where there is a fair weather airfield to snow capped peaks. Khandbari, the district headquarters, lies six miles north of Tumlingtar at an altitude of 3,500 ft. According to the 1971 census, the population of the Sankhuwa Sabha district is 114,313. The northern part, from the Tibetan border to the centre of the district is inhabited by only a few people scattered in small villages along the hills and mountains. In that area the land is quite arid permitting only the cultivation of rye and potatoes and the cold is often very severe. In the southern part of the district, the lowlands, valleys and along the cultivated slopes, the population is more dense because of the existence of arable land with rice, vegetables, citrus fruit and timber, and climatic conditions are less rigorous.

Travel in the Sankhuwa Sabha district is often restricted in winter because of snow in the north and in the monsoon season when numerous rivers and streams become impassable. There are suspension bridges over the main rivers, the Arun, Sankhuwa and Sabha but most of these bridges are in need of replacement and some are quite dangerous, especially for schoolchildren. The

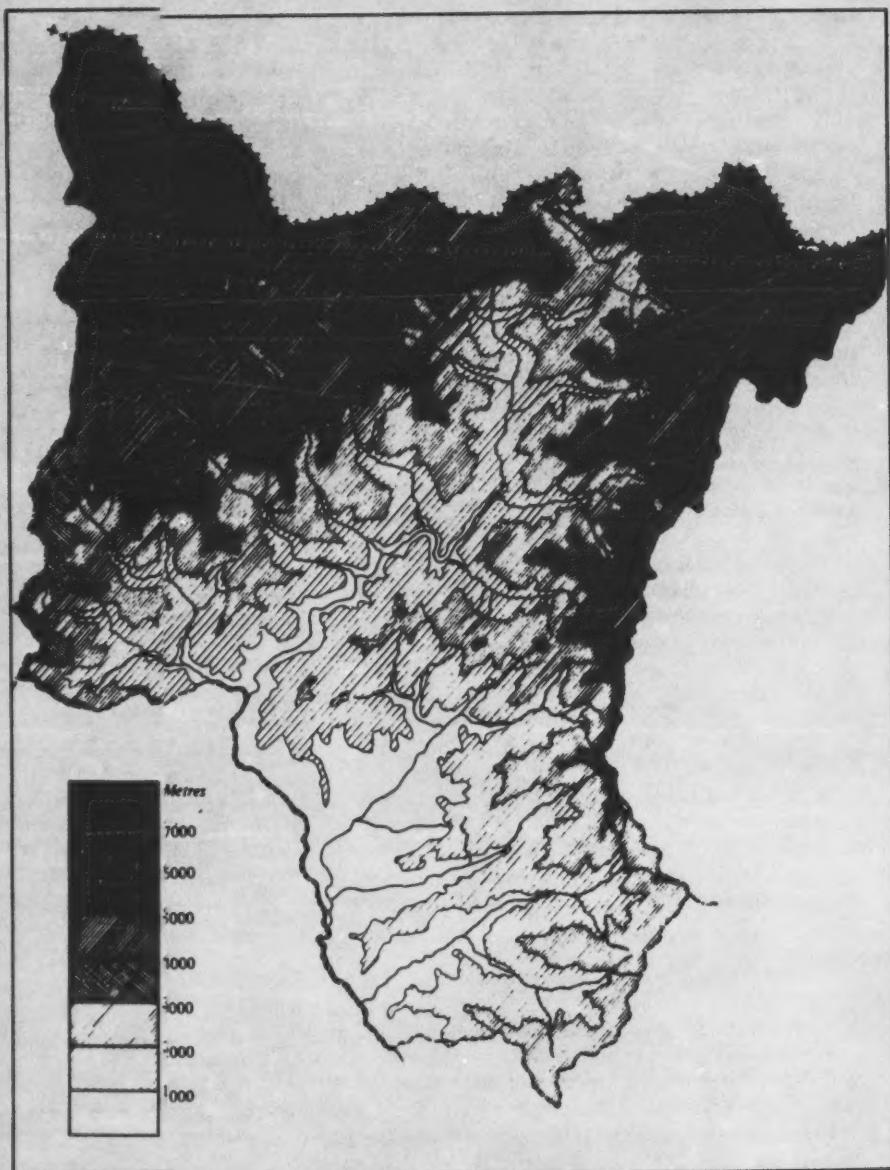


MAP 1. Nepal, showing the location of the district studied.

The Sankhuwa Sabha District of Nepal



MAP 2. *The district of Sankhuwa Sabha.*



MAP 3. *Contour map of Sankhuwa Sabha district.*

lack of bridges and the insecurity of those existing seriously limits travel in the district and obliges travellers to make long detours, some of which may involve several days' walking. At present there is no road from the terai, Gangitic plain to the hill region of the Khandbari district. There are only trails, few of which are suitable for mule traffic and many pass along or cross dangerous precipices. The nearest roadhead to Khandbari is at Dharan in Sunsari district, some 20 miles from Dankhuta; a motor road is being built between these two towns. The trail from Dankhuta to Khandbari, which is a further thirty miles, passing through Pakribas and thence to the Arun valley and Tumlingtar, is the principal access to the district headquarters. Travelling from Dankhuta to Khandbari under present conditions is estimated to take 30.35 hours for a porter carrying a usual load of about 40 kilos and 21.5 hours for unladen pedestrians. This means four and three days' walking respectively. According to various studies, it would be very expensive to transform these trails into motor routes and it is likely to be many years before there is a motor road connecting Dankhuta with Khandbari and the northern part of the Sankhuwa Sabha district, that is, the Arun valley leading into Tibet. Thus, any radical improvement in the quality of physical communications will only be in the long term. Meanwhile, all the tracks are built and maintained with a volunteer labour force provided by the villagers who, in principle, rebuild the track after each monsoon.

As far as educational administration is concerned, a picture of the difficulties can be seen when one considers the distance of different schools from the Khandbari District Education Office. Of 126 schools, 8 are less than one day's walking, 26 are at one day's distance, 33 at 2 days, 26 at 3 days, 2 at 4 days, 18 at 5 days, 3 at 6 days and 10 at more than 6 day's walking. These figures show how difficult it is to establish human contact between the administrative staff and the schools. The situation appears to be even more difficult when other official resources for communication are looked at.

2. Circulation of information

A precondition for efficient management is that there should be a certain level of contact provided by flows of information through the administrative structure. Conditions for communication adversely affect the quality of management in the Sankhuwa Sabha district in that the information network can only function rather slowly.

Radio is supposed to be used to send and receive urgent messages as between the Regional Education Directorate in Dharan, the Ministry of Education in Kathmandu and the Khandbari District Education Office. The radio satellite office of Sankhuwa Sabha

is located at Chainpur, 16 miles south east of Khandbari and messages have to be carried on foot by porters to and from the District Education Office.

As regards airmail correspondence, Khandbari lies six miles north of Tumlingtar airfield so direct air communications are possible. The nearest airfield of the Royal Nepal Airlines Corporation from Dharan is at Biratnagar, some 30 miles south, with a good road linking them. Air communications between Tumlingtar and Biratnagar or Tumlingtar and Kathmandu are possible only two days a week.

The district level post office is located at Chainpur: its other four branches are at Khandbari, Tumlingtar, Medanga in the north and Madi in the south. There are sub-branches at Chepuwa, Tanku, Mundakhi, Pakribas, Chandanpur, Barabisse, Aukhibui, Wana, Mangtewa and Tamafok. A letter from Kathmandu takes about ten days and letters from Dharan take about 6 days to reach Khandbari. This means that communication "there and back" between the District Education Office and the Regional Directorate takes a minimum of two weeks. One can imagine the situation for the remote parts of the district. Table 6 shows the number of letters received and sent in one month at the District Education Office.

The difficulties of communication complicate the job of information collecting and this, in turn, hampers the planning process. Sometimes if data received from the schools are imprecise or unclear, further time is wasted in clearing up the problems involved.

3. Geography and day-to-day management

The geography of the district, its difficult mountains, frequent gorges and cliffs, means that physical communication is a major obstacle to the administration of education and consequently a factor which adversely affects the qualitative aspect of education. However, His Majesty's Government has done its best to limit these effects as can be seen from the following example.

In order to receive their salaries, the teacher or the headmaster have first of all to complete the relevant forms and send them to the District Education Office. Though this has to be done every month for schools close to headquarters, the schools in the northern part of the district have to do so only once every three months. The headmaster and teachers in the remote northern region are thus given three months' salary in advance so that they do not have to walk every month to the nearest bank in the south of the district to collect their salaries. Without this arrangement, for the one teacher schools in the remotest parts, quite a significant number of school working days every month would have been lost. Even so, there is some loss of working days every

Table 6. Letters received and despatched by the Khandbari (Sankhuwa Sabha) District Education Office in the month of August - September¹ 1977

Stores	Accounts	Administration	Supervision	Total	
No. of letters received from schools:					No. of letters sent to schools:
13	204	176	142	535	823
No. of letters received from Regional Education Directorate:					No. of letters sent to Regional Education Directorate:
4	13	27	5	49	40
No. of letters received from Ministry of Education:					No. of letters sent to Ministry of Education:
1	4	3	5	13	19
No. of letters received from other offices:					No. of letters sent to other offices:
					49

1. The calendar used in the Kingdom of Nepal differs from the Gregorian calendar.

Notes: The total number of letters received was 646 and number of letters despatched was 931. The total number of letters received from schools was 535. In response letters sent to schools, including essential notices, was 823.

As regards the Regional Education Directorate, more letters are received than sent. This is because RED sends notices which do not require answers.

The above description provides a glimpse of what goes on inside a District Education Office.

Source: Sankhuwa Sabha District Education Office, Khandbari.

three months but this is unavoidable under the circumstances. It is thus obvious that despite the best efforts of the national authorities, distance and weakness in communications are factors undermining the quality of education, independent of purely administrative factors. Of course, one might suggest that the solution of such a problem could be the location of more branches of the National Commercial Bank in the remote areas, but it is not certain that this solution would be judged to be a rational one from the point of view of the bank or that ways to compensate the bank for eventual losses might be found. In fact, the real solution depends on a whole process of development activities of a much wider nature than the single question of the administration.

CHAPTER IE. ECONOMIC AND CULTURAL CONSTRAINTS ON THE MANAGEMENT OF EDUCATION

1. Economic-agricultural constraints

Agriculture is the main pursuit of the great majority of the population in the district. Farming methods and techniques are quite traditional and therefore require comparatively more hands on the farm. Consequently, the very nature of the economy is also responsible for many educational problems which hamper the efficient management of education, independent of mere administrative efficiency. This can be seen, for example, when one examines the reasons for the heavy drop-out from school, the low enrolment of girls and the high average number of pupils in the first grades, which were discussed in the preceding part of this study.

Drop-out

The reasons for the appreciable drop-out during the school year and from one grade to another cannot be proved with any precision but certain suppositions may be made about them. Some are linked with geographical and communications conditions, others with the agricultural calendar, and yet others with cultural attitudes and behaviour.

The most probable seasonally influenced reasons for drop-out are the following. Some parents send their children to school while their supply of grain lasts, then they send them to earn money by manual labour. Some parents raise sheep and move their herds from place to place according to the season. When they are near a school, they send their children to attend it, but otherwise they do not do so. If farmers sow maize, the fields require pulverisation of the soil after the plants have grown to a height of about one foot. The farmers and their wives undertake this work and while they are in the fields, the children take care of the home and tend the goats and cows. This seems to be an acute problem throughout the district according to the inspectors. The Jalpa-Jogidanada primary school can be given as an example. At the beginning of the school year, the number of pupils was around 70, but subsequently it fell to 20.

The reason for the relatively low number of pupils in lower

secondary school is that there is a lack of such schools within reasonable distance from childrens' homes. In general, the authorities have decided that a lower secondary school should be built for every three or four primary schools taking the geographical conditions into account. But another reason, at least as powerful as that of location of the school, is that some parents find it hard to afford even the cost of fees and textbooks, though when seen from Kathmandu, they are not so prohibitive.

2. Enrolment of girls: a cultural problem

As we can see in Table 7, the number of girls in any grade is much lower than that of boys and the rate of drop-out, particularly as between the first and second year, is higher. On average, the ratio of girls to boys for the 10 grades over a 4 year period is less than 1:5 although it is gradually rising. This means that the percentage of girls is about 18 per cent of total enrolment. The probable reasons for the low enrolment of girls are the following.

Many illiterate parents regard education for girls as of very little use. They would prefer them to do domestic chores and farm activities rather than to send them to school and lose their labour. Hence opportunity cost inhibits many parents from sending their daughters to school. Moreover, many Nepalese families tend to accord priority to sons so far as education is concerned because they consider them a possible means of future support. Beyond these cultural reasons, there are some other very practical reasons that explain the low number of girls enrolled in schools.

First of all, there is a lack of female teachers in the district. In 1977, 27 female teachers at primary level, and one each at lower secondary and secondary levels were working in the district. The corresponding figures for the SADP area were 7, 0 and 1 respectively. A good number of female teachers in school could serve as a catalyst to bring about an attitudinal change, particularly among conservative parents, towards girls' education. The smaller proportion of enrolment of girls at primary level is to an important extent responsible for their low enrolment at upper levels. However, hostel facilities attached particularly to secondary schools, could help retention of many girl students who tend to drop out because of the distance to secondary schools. The arrangement for free education of girls at lower secondary and secondary levels in 18 remote districts of Nepal, including the Sankhuwa Sabha, is certainly motivated by a desire on the part of the national authorities to improve the enrolment situation of girls. From this point of view, it is socially a very positive feature but from the point of view of schools which have to raise

Table 7. Sankhuwa Sabha District - enrolment of girls and total enrolment by grade, 1974 to 1976

Grades		1	2	3	4	5	6	7	8	9	10	Total	% girls
August 1974	Total	2 624	814	741	337	275	301	166	173	142	123	5 696	
	girls	536	109	91	56	29	39	22	23	18	13	936	16.4
August 1975	Total	2 449	1 309	856	576	300	321	283	192	146	140	6 572	
	girls	493	202	126	70	59	33	37	21	19	22	1 082	16.5
August 1976	Total	4 668	1 627	1 150	783	471	296	306	267	180	129	9 877	
	girls	1 074	269	176	132	79	64	34	32	18	19	1 897	19.2
August 1977	Total	4 937	2 261	1 439	909	636	378	245	403	211	161	11 580	
	girls	1 602	454	237	131	89	48	47	38	25	20	2 691	23.2

Source: Sankhuwa Sabha District Education Office

money to cover part of their costs, a higher proportion of girls means a lower number of paying pupils and hence less income, since the Government does not compensate the lack of income by paying fees for the tuition of girls. Because of this fact, active promotion of the national interest by enrolling girls in large numbers could hardly be expected from a headmaster who is very much conscious of the loss in school income. This measure therefore does not seem to be very fruitful unless the Government thinks in terms of compensatory grants to schools.

3. Over-age pupils

According to the NESP, children in primary school are supposed to be between 6 and 8 years old, and the ages for attendance at four year lower secondary and 3 year secondary follow on. In practice, it is very common, as shown by data analysed in the previous chapter, for pupils to be much older than this. The following reasons may be adduced for this state of affairs.

When the schools are far away, young children cannot reach them, two hours' walking being the maximum for them. By the time they can walk long distances, they are 9 and 10 years old, so they start school 3 or 4 years late. In rural areas, if there are only one or two children, they do not like to go to school alone; they wait until there is a larger group so that they can all go together. Thus grown up children sometimes aged 14 or 15 are seen in primary schools. In other cases, it has happened that there was no school available while the children were young. When the school was opened, adolescents who had not been to school also attended.

Because of repeating in a class for two or three years, some children are too old for their grade. In lower secondary and secondary schools, over-age is caused mainly by over-age in primary schools. But to these evident reasons, another more specific one can be mentioned, namely, the lack of hostels. Parents are reluctant that their children should leave home before adequate facilities for food and lodging have been established. This seems to be quite an important bottleneck, the elimination of which would allow a larger number of children, especially girls, to attend school.

CHAPTER II. BUDGETARY CONSTRAINTS ON EDUCATION

In this chapter we examine the ways in which the financial arrangements and problems of financing education in the Sankhuwa Sabha district have been influenced by national patterns. To do this we first of all look at the sharing of responsibility for finance as between the Government and the community in respect of each level of education. Next, we consider within the limits of Government responsibility for paying for education, the trend in Government expenditure on this sector and the distribution of expenditure by level of education. Finally, within the same limits of central Government and local responsibility, we show the allocation and trend of public expenditure in the Sankhuwa Sabha district.

1. Financing pattern in education

The prevailing financing pattern in education in Nepal is a consequence of the New Education System Plan (1971 - '76) recommendations and hence is of relatively recent origin. Guided by the concept of education as an investment in human resources development, the NESP committed HMG to larger financial involvement in education when compared with the financing policy previous to NESP implementation. However, education, particularly at the school level, is envisaged as a joint responsibility between the Government and the people. In the preceding chapter, we have made occasional references to the financial commitments of HMG to school education. We now propose to present a view of HMG and local community obligations in relation to various types and levels of education.

At primary level, the entire teacher salary costs throughout the kingdom are the HMG's responsibility as are remote area allowances as mentioned above. Since the introduction of free primary education in 1975, the Government also makes a contribution to every school for stationery costs at the rate of Rs. 12 per annum per pupil. As regards the supply of educational

materials, the Government pays a lump sum of Rs. 300 per school as a once and for all grant. In addition, with Unicef support, the Government distributes free text books to all pupils of 25 remote districts and to 15% of those in the remaining districts. Each school is also provided with a scholarship grant, however small.

At the lower secondary level, HMG contributions toward teacher salary costs range between 75 and 100 per cent. Eighteen remote districts receive 100 per cent of teacher salary costs while the remaining 57 districts get 75 per cent. Government responsibility also involves the supply of science and pre-vocational materials to all schools, irrespective of the regions but this, too, is on a once and for all basis. One scholarship grant for each school is also provided.

At the secondary level, the Government subsidizes 50 per cent of teacher salaries in 57 non-remote districts while its contribution in 18 remote ones rises to 100 per cent. Besides this, the Government also supplies science and vocational materials to every school without, however, assuming responsibility for replacements. In order to ensure that practical work in vocational subjects is carried out, the Government pays the entire costs of the construction of vocational workshops. Schools having vocational streams are provided with an additional grant amounting to 25 per cent of total teacher salary costs. One scholarship at this level is also provided.

Courses on physical education being obligatory at all levels, each school is provided with the necessary materials, including games and sports equipment.

The Government also provides annual grants to schools for disabled persons to cover their recurrent expenditure.

At the higher education level (including teacher training colleges), during the early phase of NESP implementation, Government financial commitments were limited to defraying all technical education costs (capital and recurrent) and 50 per cent of teacher salary costs of non-technical institutes, but following the withdrawal of the Chamda Act (1973/74), these commitments were extended to cover the entire costs of higher education regardless of the type of institute. The financing pattern has become indicative of the Government's priority for higher education as compared with school education (see Table 10).

National Development Service is obligatory for every student taking a degree at university. Under this scheme, such students have to serve a year in remote parts of the country before being qualified for the award of a degree. The Government bears all costs of this programme, including student maintenance allowances.

An overview of the main financial responsibilities of the Government in relation to school and university education has now been given. Local community responsibilities, particularly as regards school education, are set out below.

The local community has to provide for the physical facilities, such as classrooms, staff rooms, science laboratories, furniture and hostel facilities, etc. Apart from these, the local community must pay the remainder of teacher salaries at lower secondary and secondary levels, full salary costs of non-teaching staff in all schools and replacement of equipment and materials. The School Co-operation Committee and the District Education Committee are formed to mobilise local support and resources for this purpose. Land endowments, voluntary labour, cash and in-kind donations, tuition and other fees constitute the main local resources which the School Co-operation Committee mobilises to finance capital and recurrent school expenditures.

2. Trends in public expenditure on education

Looking at global public expenditures on education in Nepal, one finds that the increase over the five year period has been almost four-fold from 63 million Rs. in 1971/72 to 243 million Rs. in 1975/76. This increase, which allowing for price changes represents a substantial increase in real terms, certainly reflects the Government's growing interest in the development of education since the inception of NESP. In proportional terms, the share of education in total estimated national expenditure increased from 7.1 per cent in 1971/72 to 11.4 per cent in 1975/76 and then declined to 10.1 per cent in 1976/77. Now that the NESP reform has covered all the 75 districts, the proportion of the education budget in total budget expenditure is expected, given the Fifth Plan policy framework, to become stabilised at around 10 per cent for some years.

Table 8. Nepal Public Expenditure on Education (at current prices in million Rs.)

	1971-2	1972-3	1973-4	1974-5	1975-6	1976-7
	Actual	Actual	Actual	Actual	Actual	Provisional
Total Education Expenditures	63	90	113	149	243	261
As % of national budget	7.1	9.1	9.2	9.9	11.4	10.1

Source: Fifth National Economic and Social Plan (unpublished data)

Assuming that Government spending on education will remain around 10 per cent of the national budget, at least in the medium

term, this proportion though higher than that which some countries in the Asian region (see Table 9) devote from their national budgets, nevertheless ranks Nepal lower than many others.

Table 9. Public expenditures on education as a percentage of national budgets, Asian region

	Year	%
Afghanistan	1974	12.7
Bangladesh	1975	11.7
Burma	1971	18.4
India	1975	28.4
Indonesia	1974	12.7
Nepal	1975	11.4
Pakistan	1975	5.2
Philippines	1975	10.0
Saudi Arabia	1974	8.2
Thailand	1974	18.2

Source: Current Surveys and Research in Statistics, Education Statistics, Unesco CSR-E-26, January, 1978, Paris.

3. Distribution of the budget by level

An analysis of the distribution of the Government budget (Table 10) by level of education shows that the proportion of public expenditure devoted to primary has been steadily rising except in the year 1975/76 when it dropped slightly. Increased enrolment with consequent increase in the number of teachers largely explains this trend. It must be borne in mind that these expenditures relate mainly to teachers' salaries and stationery costs and that the local communities are responsible for building, maintenance and some materials for the classroom. Future efforts to improve the percentage of trained teachers, which at present represents 39 per cent of the total number of teachers, coupled with further expansion in primary enrolments is likely to maintain this upward trend both in proportional and absolute terms.

The secondary education budget, which includes lower secondary teachers' salaries, though rising in absolute figures, has in fact declined in proportional terms. A comparatively higher proportion of the budget at this level during the early periods of NESP implementation was due to the capital costs of the Budharilkantha (government) secondary school. The 1976/77 budget, however, does not include this cost and therefore from then onwards includes mainly teacher salary costs. Any serious efforts on the part of the Government to achieve the planned

Table 10. Nepal. Allocation of Government educational expenditures by activity (in 000s Rs.)

Year Activity	1973/74		1974/75		1975/76		1976/77	
	Total	%	Total	%	Total	%	Total	%
Primary	24 685	19.4	37 443	23.6	52 682	21.4	64 600	25.3
Secondary	31 490	24.8	34 959	22.0	40 024	16.3	50 121	19.2
Educational materials and examination expenses	13 485	10.6	15 569	9.8	12 916	5.3	16 110	6.0
Physical education	948	.7	1 420	.9	2 036	.8	1 098	.4
Adult education	1 350	1.1	1 300	.8	1 600	.6	2 708	1.0
Administration	9 559	7.5	12 729	8.0	14 400	5.9	13 974	5.3
University education	38 500	30.3	44 120	27.8	100 087	40.7	93 124	35.6
Miscellaneous	7 174	5.6	11 308	7.1	22 246	9.0	19 810	7.6
Total	127 191	100	158 848	100	245 991	100	261 545	100

Source: Ministry of Education, Nepal

enrolment target at lower secondary level would sharply increase the relevant expenditure. The only alternative open to the Government to contain these expenditures would be through resorting to a compromise on planned pupil/teacher ratio which was fixed at 25:1. However, steps would have to be taken to ensure that an increased ratio does not further affect the quality of secondary education.

Expenditure on higher education is a major item in the education budget, claiming a share as high as 40.7 per cent in 1975/76. This is explained by the fact that the Government's commitments at this level cover all costs, both capital and recurrent. This orientation of the budget is a manifestation of the Government's over-riding concern to produce the various types and levels of manpower required for the national economy. Analyzing Table 10 above, we find that while the university allocation increased by 244 per cent over the four year period, the corresponding increases in primary and secondary (including lower secondary) budgets were 262 per cent and 159 per cent respectively. In budgetary terms, this shows that secondary education has received a relatively low priority in public expenditure allocations and this to some extent explains the slower growth rate at this level.

When we look at the educational materials budget, we find that in proportional terms its share is progressively declining. Evidently the Government's current policy to supply educational materials, particularly science and vocational materials on a once and for all basis has kept expenditure from rising. In coming years its proportion is likely further to decline since materials will be supplied only to new schools whose number cannot be expected to rise dramatically.

Adult education programmes have received the lowest priority in the education budget. In fact, problems of organizational support resulting in low cost efficiency have kept it at a low profile and the Government has decided to scratch the programme in favour of a more realistic one already designed and implemented on an experimental basis.

Finally, it may be noted that the proportion of expenditure devoted to administration showed a declining trend over the period.

4. Educational expenditures of the Sankhuwa Sabha district

Table 11 shows that over a three year period, the education budget of the district has increased by about 75 per cent - from 785,000 Rs. to 1,385,700 Rs. Thus public education expenditure has risen to a significant extent during NESP implementation. But when we closely analyse expenditures, we find the increase in the budget relates only to quantitative expansion, i.e.

The Sankhuwa Sabha District of Nepal

Table 11. Allocation of educational expenditure by activity in the Sankhuwa Sabha district (in 00 Rs.)

Activity	Year 1973/74		1974/75		1975/76	
	Total	%	Total	%	Total	%
Primary education	3 440	43.8	6 306	59.6	8 767	63.2
Lower secondary and secondary education	2 600	33.1	2 887	27.4	3 390	24.5
Physical education	80	1.1	40	0.4	-	-
Adult education	40	0.5	51	0.5	147	1.1
Administration	1 575	20.1	1 111	10.5	1 330	9.6
Miscellaneous	115	1.4	178	1.6	223	1.6
Total	7 850	100	10 573	100	13 857	100

Source: Ministry of Education, Nepal

growth in enrolment and teachers. More than 95 per cent of the budget is devoted to teachers' salaries, stationery costs at primary level and administrative expenditure. Only a small proportion remains for other aspects of education.

Primary education has claimed the major share of the budget as is obvious from the fact that enrolment has already reached 89 per cent of primary school age population, which is well above the national average of 59 per cent. One can safely predict that future expenditure at this level will not climb so sharply because as far as enrolment is concerned, at least in grade 1 of primary, it has almost reached saturation point. A major factor which will influence costs at this level will be growth of proportion of trained teachers.

The lower secondary and secondary education budget during the same period has grown by only 30 per cent. Enrolment at both levels is well below the national target - only 22 and 36 per cent respectively. Government attempts to meet the plan target will involve it in allocating a greater proportion of resources to these levels, particularly in view of the overcrowding of secondary classes and qualitative problems.

Since the Regional Directorate supplies education materials in the district, expenditures related to these are not reflected in the district education budget. The teacher training programme which is organised in the form of seminars lasting 2 to 3 days at the district level, has received about Rs. 4,000 which is included in the miscellaneous item. The relatively small amount allocated for this purpose has prevented the programme from

achieving its potential impact.

Administrative expenditure during the early phase of NESP implementation, though considerably higher than previously, has, however, declined over the period. Since the plan implementation phase is now completed, it will stay at the 1975/76 level in absolute terms.

CHAPTER IG. PROBLEMS AND CONCLUSIONS

As far as the quantitative aspects of education in the Sankhuwa Sabha district are concerned, there has been an appreciable increase in enrolment since the inception of the NESP as from 1973. Nevertheless, this effort has been accompanied by a considerable degree of wastage since of the pupils in grade 1 primary where the increase has been greatest only a half have acceded to the second grade. This wastage, as well as over-age attendance and repeating, occurs in subsequent grades but to a less alarming, if appreciable, degree.

A significant discrepancy has developed as between the over-achievement of the plan targets for primary and the under-achievement in lower secondary and secondary. This is partly due to the wastage factors referred to above. But it is also a consequence of a shortage of lower secondary and secondary school facilities, and classes visited at the secondary level indicated overcrowding and problems as regards success in examinations. The enrolment of girls has increased sharply at the primary level. But a number of factors have prevented a more satisfactory development of girls' secondary education.

The educational situation in Sankhuwa Sabha can therefore be characterised as one in which considerable progress has been made but a number of discrepancies between the intentions of the Government and reality remain to be solved. These discrepancies, whether in terms of cohort progression rates within levels of education, transition rates, examination success rates or enrolment of girls, add up to a relatively low rate of efficiency of expenditures on public education. The problem of improving efficiency and meeting the Government's objectives in an area where communications and development are difficult is to a large extent, but by no means solely, financial. Local resources, particularly in the north of the district, are very scarce and it would seem doubtful whether the impediments to plan implementation with which the area is afflicted can be removed, within the framework of existing shared financial responsibilities, without additional resources being provided from outside the

district. On the other hand, it appears that at the national level, there is a constraint in the medium term on any change in the proportion, but not the absolute amount, of resources devoted to education. In these circumstances, while the complete achievement of objectives may take longer, it would seem wise to support at local level all those measures and procedures which can be expected to exercise a multiplier effect in terms of improving the efficiency of education and to seek all possible ways of increasing the local contribution to education.

The task of administration at the local level is therefore to carry out the Government's policies with the maximum possible contribution and co-operation from the local people and given the new arrangements for the sharing of responsibility within the NESP. The administration has to carry out its tasks in a rather severe climatic, topographical, cultural and economic environment. It is necessary to take these aspects into account when assessing the efficiency of administrations and considering how it might reach the level of those parts of the educational administration which work in easier conditions. Cultural constraints are given elements in the situation which can only be changed in the long run and which affect the efficiency of the administration to some extent independently of the qualities of the administrators themselves. But it is also clear that the effort to improve education quantitatively and qualitatively in the Sankhuwa Sabha district can be itself a factor which may progressively modify cultural resistances to education. These factors should be borne in mind when any judgment is made on the success of the administration in organising resource supply in conditions of financial penury.

The discussion of the administrative structure of the educational system shows that it is quite a classical one. Nevertheless, it may be noted that at the district and school levels, there are institutions, the District Education Committee and the School Co-operation Committee respectively, whose function is not merely administrative. These institutions constitute a point of contact between the administration and the population which exists in order that support should be provided for the schools. The dual nature of these bodies, at least potentially, in assisting the administration of and mobilising support for education, in liaison with the panchayats, means that the principle of authority which guides the administration cannot be fully applied to the committees. The problem is to derive solutions to this sharing of powers which are productive in terms of support for education.

II. Basic material conditions of education

An important function of educational administration is to produce adequate material conditions for education, that is, school buildings and maintenance, furniture supply and maintenance, books, teaching equipment and materials and their replacement. The object of this part is to study how supply of these material resources is organised. Organisation is considered here in the broader sense of the term in that it includes both financial and administrative matters.

CHAPTER IIA. SCHOOL BUILDING AND FURNITURE SUPPLY: THE QUANTITATIVE AND QUALITATIVE SITUATION IN SANKHUWA SABHA DISTRICT

1. Opening of new schools

It has been shown above, that considerable progress in enrolment has been made in the Sankhuwa Sabha district during the past five years, but that there are difficulties in two areas: the over-crowding of primary schools in the southern part of the district and the lack of sufficient lower secondary schools to achieve the planned expansion of enrolment. It follows therefore that construction and opening of lower secondary schools are the main priority for the coming years. At the same time, with a high rate of participation in primary schools and considerable over-crowding in grade 1 of many of those schools, the emphasis has swung from construction to enlargement of primary school buildings.

An analysis of the distribution of school buildings in the Sankhuwa Sabha district shows that more than 70 per cent of total school buildings in the district lies to the south of a line drawn due east from Khandbari to the Sabha river. It is notable that the area north of Num (see map) has not yet a lower secondary or secondary school. The relatively lower density of primary school population in the north of the district may hitherto have deprived the area of the opportunities for upper level school education. But quantitative and spatial analysis could very well justify the establishment of such schools. The present dispersion of the school population clearly hampers the expansion of education in the area. Moreover, interviews with villagers in Chiple, Pangma and other places to the north of Khandbari show that parents would be willing to give better education to their children if new classes beyond the third grade of primary could be opened in their villages or at a reasonable distance from them. The lack of school buildings, including classes beyond the third grade, is a particular constraint on the expansion of girls' education, since if parents can agree to allow their sons to walk for two and a half hours to school, they are much more reluctant to allow their daughters to do so. This is the main reason why there are so few girls in secondary schools, since there is only one secondary

school in the SADP area and four for the whole district. This of course does not mean that it is necessary to build a secondary school in each panchayat in order to reduce drop-out, especially among girls, but this target could be a reasonable one in the near future as regards lower secondary schools. But it does mean that the development of secondary education, particularly for girls, is linked to some extent with the building of hostels. It is important to note that the Government, having realised the need for a greater number of lower secondary schools in the districts, has already started a special programme for remote areas which will allow for the upgrading of existing primary schools into lower secondary schools every year even for a small number of pupils.

2. The qualitative aspects of school building

The main characteristic of the school buildings the team has visited is the use of local materials and the absence of industrial or mass produced building materials, with the exception of the roofing of a certain number of schools of the panchayats included within the SADP area. In these schools industrial corrugated iron or plastic roofs have been supplied by the government in co-operation with UNICEF and according to the programme all the schools of the SADP area which covers 9 out of the 41 panchayats in the district, will have similar roofs in the next two years.

School walls are generally made of mud and are whitewashed in some cases. Several buildings are even more simple and the walls as well as the whole school are made of bamboo. Usually floors are made of hardened clay. Ceilings, when there is a second floor, are made of wood. One can see many schools with this kind of construction in the district. The disadvantages of such buildings are quite obvious. Poor acoustics is one of them. But given these construction materials, a lot more improvements could be made to school buildings.

As a rule, the predominant use of local building materials and local building construction techniques, without the use of standardised building materials, is due to the general level of technology, the difficulties in communication and the economic situation. Any other kind of material or technique could reasonably be considered as a luxury in prevailing conditions. Nevertheless, it seems clear that the use of local materials and building techniques could provide much better school buildings than those we have seen since many private houses are both well built and comfortable. In the same way, many of the defects in building construction that we have found in the course of our visits cannot be explained merely by the "general economic situation of the country".

In many schools, clay floors are built at a level flush

with the outside ground. The result is also that floors are very humid and even muddy. This could be at least in part avoided by assuring a small difference between the higher floor level and that of the ground outside. The orientation of the building does not always take deliberate account of the direction of the wind or the usual technical considerations related to the climate. In the schools where there is a second floor, the use of clay to separate the floor in addition to the use of planks which form the floor as well as the ceiling would greatly reduce the disturbance caused by noise and facilitate the concentration of pupils and teacher, thus diminishing nervous and intellectual weariness. Finally, it seems to be a general established fact that the size of the classroom is much too small. They are usually full with 25 pupils and overcrowded with more than 30 which, as we shall see below, is a common situation.

Other technical misconceptions in building which could easily be avoided without using elaborate materials or sophisticated building construction were found and could be enumerated. Before studying the organisational reasons for this situation, it is important to mention the problems of school furniture which is qualitatively of a similar nature to that of the school building.

3. School furniture

Since the introduction of free primary education, enrolment at this level has climbed sharply as we noted above. As a result, the ratio between material needs and pupil enrolment has worsened. According to the Statistics Department in the Ministry of Education, there are 122 primary schools where 9,627 pupils are enrolled. The number of desks and benches is only 945 which means an average of 9 - 10 pupils per bench, which is obviously too much. Three blackboards are considered essential in a primary school (one for each grade) and it is important that they should be adequately made and really black. In the district, there are only 272 blackboards instead of 366 if the above ratio were to be complied with. As to cupboards, 122 would be needed but there are only 64 for all the schools. Many of these pieces of furniture were of poor quality.

All the basic furniture is locally made. But the fact that we have sometimes seen pieces of good locally made furniture is proof that making good furniture is by no means beyond the technical possibilities of local carpenters. There are other reasons for the unsatisfactory situation of school furniture which must be looked for. In fact, it seems that for school building and school furniture, there may be three main organisational reasons for the weaknesses which have been identified. They are: the organisation of the arrangements for financing of school opening; the lack of administrative and technical standardisation for building and furniture, and finally, the organisation of the financing of school maintenance.

CHAPTER IIB. BUILDING AND OPENING OF SCHOOLS: THE PLANNING AND FINANCING PROCESS

1. Planning of the school building process

The planning process involved in building and opening a new school starts at the panchayat level. The chief of the village panchayat and the headman of the village are required to fill in on a form the number of eventual pupils in need of a school within the respective villages. This form is supplied by the Regional Directorate through the District Education Office. The completed forms are sent by the chief panchayat officer, through the supervisors, to the District Education Committee and thence to the Regional Directorate in Dharan. The same process is followed by the panchayat school co-operation committee and the chief of the village panchayat for upgrading existing schools. The purpose of this procedure is to ensure that capital projects requested by the panchayats, which if authorised would be taken in charge by the panchayats themselves, do not have unforeseen financial effects on the District and Regional budgets, in so far as new schools imply new teachers whose salaries are mainly paid, as we have seen above, through the development budget of the Ministry of Education. New school buildings also commit the state to grant certain scholarships and supply certain books and educational materials. Two main conditions are thus required for the building of a new school: the first is that the government accepts the commitment to pay teachers' salaries and some other expenditures; the second is that the people of any given panchayat are willing to build new schools and incur the relevant expenditures in respect of those matters for which the panchayat is responsible. These two factors, seen against a background of shortage of money for types of capital expenditure other than education, explain the difficulty of opening new schools in the remote parts of the Sankhuwa Sabha district.

2. Resources for capital expenditure

Although most school building does not require much monetary

expenditure, especially in remote areas, there is nevertheless a minimum basic need for funds for this purpose which cannot be avoided. Carpenters must be paid; paint, locks or cement, when used, cannot be obtained without a transfer of cash. As we shall see below, it is quite difficult to collect this money from the population. But one of the possible sources of grants and loans can be state funds and welfare institutions. First of all, certain grants are available without interest from the Revolving Fund and the Special Fund which are operated at the district level. The Revolving Fund was created by the Government with an amount of Rs. 50,000 (\$ 4,016) for each district, while the Special Fund is derived from the contribution of five per cent from each school budget. However, the total amount in this latter Fund for the Sankhuwa Sabha district is not very substantial as many schools are not financially well off. In any case, since these Funds are meant for the advance of loans to needy schools, they constitute an instrument by which capital may be transferred from the richer part of the district to the poorer.

Certain grants are also available from funds provided by the Home and Panchayat Affairs Ministry. For example, the Khandbari District Panchayat contributed 50 per cent of the cost of the Khandbari secondary school building, for which total expenditure amounted to Rs. 33,187 (US \$ 2,662). The Gurkha Welfare Fund (for ex-soldiers) also provides certain resources for capital expenditure. This fund, for example, contributed Rs. 2,500 (\$ 200) for the building of Angla's primary school and Rs. 3,000 (\$ 240) for the building of Khandbari lower secondary school. Finally, funds have also been contributed occasionally by the National Development Service, whose students work in the district as part of the Government plan that they should give a year of service to the country. With the exception of the Gurkha Welfare Fund, these grants appear to be restricted to secondary and technical schools. It is also of importance to mention as regards the construction and improvement of buildings that the SADP had requested the District Education Officer to prepare a plan to provide plastic roofing for the schools in the SADP area and that the SADP has hitherto contributed to the roofing of ten schools with the use of UNICEF funds. In addition, the SADP plan for 1977-78 contains provision for the expenditure of 15,000 Rupees (\$ 1,200) for the extension of the school buildings. This is, of course, a relatively small proposal and it must be borne in mind that only 9 panchayats which form part of the SADP area out of 41 panchayats in the district as a whole, benefit from these special types of help.

Lack of capital resources for school building particularly in remote districts, constitutes one of the difficulties in expanding education and the question whether the government should or should not provide capital funds in its annual budget to help achieve the objectives of the Fifth Plan may be discussed. But

another way of looking at the government's commitment is to say that since the government pays for the training and also much of the salaries of teachers, the rate of increase in its allocation of funds for salaries and for training exerts a powerful effect on decisions regarding school building in the districts.

Problems of the production of teachers will be discussed in Part III of this report. Nevertheless, we can mention at this point that there is a notable shortage of trained teachers. Any attempt to overcome this shortage within a reasonable period of time would require national resources to expand, on a significant scale, the present facilities of the Institute of Education and intensive in-service training in the district. The lack of resources seems, once again, to be a very important factor which hampers the expansion of education. At least it is clear that among the reasons for slowing down the rhythm of school opening taken into consideration by the District Office and the Regional Directorate is that the quota for the recruitment and payment of teachers, agreed to by the Ministry, is limited. Although it may in some cases be difficult, as we shall see below, to encourage the panchayats to request the opening of new schools, the district and regional levels are obliged each year to turn down demands for new school openings, especially lower secondary and secondary schools.

It would also seem that within the district, the competition for new teachers as between schools in the North and the South of the district may work out to the advantage of the latter and hence the opening of schools in the north may be retarded. It has been mentioned that the current financial rule for payment of teachers' salaries is that the Ministry of Education budget will pay 100 per cent of teachers' salaries in primary schools, 75 per cent in lower secondary and 50 per cent in secondary schools, the remainder of the salaries being paid by the school budget, namely, by the parents through the fees they pay for lower secondary and secondary education and for certain other items which are included in the school budget. The Government also pays 100 per cent of teachers' salaries of lower secondary and secondary schools of remote areas in 18 districts of which the northern part of the Sankhuwa Sabha district is one.

Since primary teachers' salaries and allowances are paid entirely by the Government and the total amount allocated to the district for teachers' salaries in the development budget is limited, this means that the pressure for teachers in the remote north must compete with the pressures for more lower secondary and secondary teachers in the richer part of the district where the burden of demand for upgrading of schools is felt sharply. On the other hand, there seems to be a clear tendency at the district level, with the authorisation of the Regional Office, to give priority to this last demand. This trend seems to proceed from the classical fact that demands of people who are nearer the

decision centre are more easily heard and satisfied than demands of people who are geographically and socially far from the decision centre.

A further and deeper study of the problem of the remote areas would probably show that a kind of vicious circle is operating. The original imbalance between the school levels in the northern, central and southern parts of the district respectively, tends to produce a higher pressure in the latter area for upgrading since the number of pupils coming from primary and lower secondary schools is each year greater. One of the consequences of this fact is the tendency to allow the extension of existing schools in the richer part of the district rather than promote new school building in the remote parts. This in turn accentuates the preceding effect. Another circular consequence of the trend is that the lack of primary and more importantly lower secondary and secondary schools in the northern region, makes it difficult to find educated people who are able to speak the specific northern language and who are willing to work as teachers in their district of birth.

These considerations should not lead to the idea that there is a conscious reluctance on the part of the district and regional authorities to implement education in the remote northern areas. On the contrary, in the opinion of the responsible persons in the District and Regional Education Offices, a special effort has been made to assist these areas. Remote area scholarships can be cited as an example; the recipients of these are required to teach in these areas for a period of five years on the completion of their teacher training course.

Today, out of the 41 panchayats of the district, only 6 are classified as remote and their teachers receive special salaries to encourage them to work there. But it seems that the way this special allowance is operated does not really encourage teachers to go to these areas. The first reason is that the special remote areas allowance is only given to teachers whose place of birth was outside the Sankhuwa Sabha district. This regulation was made with the aim of encouraging urban educated people to move to the hilly and remote districts of the country. But in fact the result seems to be the opposite. The level of the allowance is not high enough to encourage urban and semi-urban people to go to these really difficult areas. On the other hand, since local people do not receive it, the allowance does nothing to counter the well-known tendency of rural people to leave the place of their origin once they have acquired some education. These conditions could be expected to result in unfavourable effects on would-be teachers in the remote northern area and reinforce the difficulty of recruiting northern language speaking teachers. Even if it was easy to find teachers who would accept to live in remote areas, the amount of the special allowance given to them is much less than is needed.

Realising the gravity of the problem it is important to note that the Government, under the king's directive, has of late decided to pay Remote Areas Allowance equivalent to all teachers serving in the remote districts of the Kingdom, irrespective of their place of birth. This measure will hopefully improve the teacher supply situation in remote areas and consequently contribute to the opening and functioning of new schools.

3. Mobilisation of local resources

As mentioned above, the school development plan stipulates that the local people who will benefit from state expenditures on education, especially for teachers' salaries, have to contribute to their own education by providing resources for the school building themselves, taking into account the fact that in some cases certain loans can be obtained from official institutions, although not on a regular basis. The contribution of local people to the development of school building can be provided in the form of labour and money. It is important to examine to what extent this kind of local contribution leads to an adequate amount of school building and study how the mobilisation of local resources is organised.

A labour contribution is traditional in certain parts of Nepal where the monetary economy is not fully developed and the sense of village solidarity which gives rise to it is one of the important cultural aspects of village life. So the policy of mobilising a local labour contribution for school building looks both rational and appropriate in view of the socio-cultural background of village society. According to people interviewed and some panchayat authorities, the problem is that the labour contribution of villagers is more and more solicited as a result of the faster pace of development. For example, roads and tracks are built and rebuilt each year with local labour. When a forestry programme is set up, a labour contribution is also required to plant the trees. When the panchayat administration requires an office, it is built with the help of village labour. And the same is true of those activities of the administration whose purpose is to involve the people in development projects.

Although this policy is probably the best that one can imagine in the circumstances, it is easy to understand that the increase in requests for voluntary labour, although for the benefit of the population, makes it progressively more difficult to obtain its collaboration in spite of the effort of the authorities to maintain voluntary help at the highest level possible, and to raise the consciousness of the local people of the need for self help. Some district officers complain that it is sometimes difficult, particularly in remote areas, to get panchayat people to apply to the district and regional level for

the establishment of new schools. The reason for this resistance is probably not the lack of consciousness of the benefits of education. These are well known to the population. One of the reasons seems to be the meagre resources available within the local panchayat in relation to the needs for work and money. Frequent demand for voluntary labour seems also to constitute the main explanation for the often poor quality of school building. When looking at some of the private housing, it seems clear that village people have a traditional and good technique for building and thus lack of knowledge of building techniques is not the real reason for the poor quality of school buildings. The fact is that a quickly made bamboo school takes less time and effort than a well constructed building. Raising the height of classroom floors in order to avoid water infiltration means carrying more construction material and so on. In the next chapter, we will see also that this fact is reinforced by the lack of standardised techniques for school building.

The mobilisation of monetary resources for school construction appears to be an even more difficult problem than mobilisation of labour. The simple fact is that most of the population earn so little money that they can hardly afford a significant monetary contribution, especially in the poorest northern area of the district. When one sees in primary school that in a second grade class many of the pupils possess neither pencils nor copy books and that the explanation given is "because parents are too poor", one can grasp the measure of the problem. Even if this explanation is not always true, the simple fact that it can be given is enough to show how difficult the organisation of collection of money can be in many panchayats in the district. Nevertheless, people, including those who are more affluent, do make contributions towards the cost of school building. In one northern panchayat, where the chairman and other members are very active, they have succeeded in collecting appreciable sums amounting, for example, to 1,500 Rupees (\$ 120) in one year. But it seems that normally such amounts can be collected only when rich donors contribute the main share. In any case, with such low amounts of monetary resources being available for school building, it is easy to understand why there is such a low level of use of those mass produced and standardised materials which would have to be bought for building construction on the market. The same problem of shortage of resources applies to quantity and quality of furniture which is made locally since carpenters must be paid from the savings of the local people.

It would thus seem to be the case that the main problem involved in carrying out a school building programme in the Sankhuwa Sabha district is financial. If a basic assumption is made that the effort of the government will not be increased significantly, and this has been discussed above, then it follows that the burden of building and equipping schools through their

labour and financial contributions must remain the responsibility of the local people. It appears in these circumstances that the main administrative and organisation problem is how the local people should be organised in order to bring forward the requisite substantial amount of resources for school development purposes.

One then asks to what extent the panchayats can help in this regard. In fact, the local panchayat, which is the key local unit in the political structure of the country, is made up of one chairman, one vice chairman and nine elected members. One of its principal tasks is the current management of the local budget within the framework of a very centralised set of purely administrative rules. The panchayat is to this extent conceived as the administrative arm, at the local level, of the central administration. Its more important task is to contribute to the mobilisation of local resources for all kinds of development projects and, among them, educational projects, such as school building. The panchayat in this regard may indeed be considered as the "political arm" of the central authorities of the country.

It is important to note that at the present time the decisive and almost only tool in the hands of the panchayats with which they can promote the mobilisation of resources is what we may term "persuasive and moral exhortation" to the population, to persuade them to contribute. It would seem in this connection, that this contribution consists in fact in the transfer of resources, which have already been created, from private pockets to social funds, such as the funds needed for school building. Until now, the panchayat does not seem to have been able to play the role of organising the production of new resources by the people it administers in order to make possible the increase of capital and current expenditure for social purposes, among them being education. This, of course, implies that the panchayat may also have to assume an economic management role which might supplement its administrative and political roles within its general function of providing local regional and national bases from which to support the development of the country. If the panchayat were to play this last role and in so doing facilitate the process of capital accumulation, especially in the education field as a consequence of its own productive activities, panchayat structures, powers and responsibilities would require to be modified in order to permit a more extensive organisational capacity more specifically aimed at the development of production. Besides the problem of capital formation for school building, there are many other problems, the solution of which would also seem to be linked with an expansion of local resources both of labour and money. This would seem, for example, to be the case as regards the provision of recurrent resources for school maintenance as well as for the development of suitably articulated programmes of adult education. The maintenance problem and related organisational proposals will be discussed in Chapter 3 of this part of our report.

CHAPTER IIC. SUPPLY OF MATERIALS AND MONEY FOR SCHOOL MAINTENANCE

1. The material needs of the schools

In order to work normally, the schools must of necessity incur certain expenditures which correspond to recurrent needs for the provision of education. They include repairs and maintenance of the school building and furniture, supply of stationery, educational materials, miscellaneous items such as chalk, etc., as well as the provision of books for school libraries, and audio-visual aids in those cases where the school can afford them. In addition, lower secondary and secondary schools are required to pay for the replacement of equipment and supplies needed for pre-vocational education.

There are a number of sources for the finance of materials for schools. As regards primary schools, the Ministry of Education makes a direct contribution through the District Education Office for all recurrent expenditures. For this purpose, the Office provides a miscellaneous items grant quarterly to each school, namely Rs. 12 per pupil per year. This sum is supposed to be sufficient to cover all stationery costs. For educational materials supply, the Government pays Rs. 300 on a lump sum basis to each school. In addition, maintenance work and repairs are expected to be done by the villagers through their voluntary contribution of time in whitewashing and repairing the walls, remaking floors and so on.

In lower secondary and secondary schools, the Government provides a grant through the District Education Office towards part of the teachers' salaries as has been mentioned above. It also pays for vocational workshop construction and supplies the initial stock of material for science, vocational and pre-vocational education, while the school is responsible for the maintenance and replacement of this material. Fees collected by the school are the second source of funds, namely: entrance, monthly and examination fees. After the government grant, fees represent the most important source of income for schools, in particular, monthly fees. Another source of finance which is

not yet really very important but which in the view of the national authorities should become important, is the funds raised from rents from land and from the commercial activities of the schools, mainly the cultivation of land. Some other fees like those for games also provide a certain amount of money. Finally, direct and voluntary contributions of villagers can provide a means of financing the material needs of the schools. It may be noted that while monetary contributions figure in the school annual budget, work contributions do not since they are not recorded on a monetary basis.

The problem of meeting the recurrent needs of schools are both financial and, in some aspects, organisational. There are differences as between the primary schools on the one hand and lower secondary and secondary schools on the other, because in the former, all the expenditure for teachers' salaries and stationery supplies is supposed to be met by the state, while in the latter, almost all recurrent expenditure, except an important part of salary costs, is supposed to be found from the resources of the community responsible for the school.

2. Financial and organisational problems of primary schools

A striking characteristic of primary schools in the Sankhuwa Sabha district is the very low level of expenditure devoted to maintenance and educational materials. As an example, the quarterly budget of Chiple primary school is given below. Income for the trimester consisted of the Government's payment for teachers' salaries: 1,036 Rupees (for two teachers - \$ 83.21); miscellaneous: 125 Rupees (\$ 10); 10 Rupees (80 cents) were given to the school by a villager and placed in the bank account. Expenditure for the quarter was as follows:

	Rupees
Musical instruments	20
8 files	20
4 boxes of chalk	6
One diary copy book	7.5
8 sheets of carbon paper	2
Glue	2.25
Kerosene	11.5
Candles	4
Paper	6.5
Pencils	3
One pen	1
Total:	<u>83.75 (\$ 6.73)</u>

An analysis of these expenditures reveals that the repair and maintenance item is missing from the school budget. This is probably because the school authorities do not want to reflect an item in the budget which has to be financed by local contributions. An omission of this item should not necessarily be interpreted as an absence of repair work but it may suggest that repair and maintenance is undertaken on a more ad hoc basis when funds, if needed, are available. This is mainly true of the schools in the remote part of the district.

Although as we have seen, the villagers' contribution in money is very low, they were able to make a contribution in the form of work. A recent decision of the School Co-operation Committee had been that the villagers were to wash and repaint all the walls of the school. According to the chairman of this Committee, who himself had never had any schooling but who seemed willing to improve education in his panchayat (his two sons and daughter go to the primary school), all the 83 households of Chiple village would send somebody to do the work. According to the decision of the School Co-operation Committee, any person who did not take part in the work would be fined 5 Rupees. The chairman admitted that in fact the School Co-operation Committee did not really have the power to fine people if they did not provide help. But he thought that most of the villagers would collaborate because of the existence of a spirit of traditional village solidarity. He thought that even people who did not want to send their children to the school would turn up to work!

It is interesting to note that the school had not received any loan from the Revolving Fund operated by the District Education Office for building and repairs. It seems that since the school is in a relatively poor district, it would not be easy for it to repay any loan which it might receive. It would seem that this fund is used where the money is really needed, but among the many panchayats with acute needs for assistance, those which receive help seem mainly to be located near the district office at Khandbari.

In general, it seems that the material situation of primary schools is less than satisfactory when compared with that of lower secondary and secondary schools. In fact, primary schools have only very limited means of access to the financial resources of the population since no fees are paid by the parents. Apart from government grants, namely for teachers' salaries and the "miscellaneous" grant based on enrolment, they depend mainly on the charity of villagers. The level of material conditions of primary schools along with other factors such as the lower quantity and quality of school teachers available in remote areas, seem to explain to an important extent the relatively low qualitative level of primary education. The consequences of this may well influence the performance of pupils in the lower secondary levels as well.

3. Supply of materials for lower secondary and secondary schools

Financial and organisation problems in the lower secondary and secondary schools differ from those of primary schools. In primary schools, although often at a very low level, the budget must be and always is balanced, because, with the exception of voluntary contributions, all resources are granted by the state and all expenditures are as mentioned above financed by the state. In lower secondary and secondary schools on the other hand, budgets are not always balanced. If the authorised budget appears to be balanced when it is submitted for approval to the District Education Office, the cash budget, that is the budget on a realised expenditure basis, at the end of the year may be very different from that which has been authorised. This is because part of the resources with which the school is supposed to finance its expenditures are not guaranteed by the state. It must be found by the school itself according to the rules established by the government. This can and often does affect the real level of expenditure for maintenance, repair and the supply of basic needs for the operation of the school. Two main factors can cause cash deficits of an unplanned nature. The first is the level of income received by a given school in relation to expenditures which cannot be reduced. The second is the uncertainty which affects the collection of certain kinds of resources.

As we can see from a typical school budget given in Table 12 for the Khandbari Himalayan primary and lower secondary school, the main income item of this school (19,957 Rupees), was provided by the Government's grant in respect of teachers' salaries. In addition, fees collected from the pupils for entrance, monthly, games and other fees amounted to a total of 17,586 Rupees, while gifts and income from rents amounted to only 1,140 Rupees. On the spending side, the main and it may be said the only expenditure which cannot be reduced is that of 26,586 Rupees for teachers' salaries, a part of which is paid by the Government. This means that the greater part of fees received are committed for the payment of that part of the salary which is not met by the Government grant. In this case, it amounts to 26,586 Rupees less 16,507 Rupees, i.e. 10,079 Rupees. If we deduct this unavoidable commitment from the amount collected for fees and other receipts, we can see that only 8,647 Rupees (18,726 - 10,079) are left for other expenditure, such as maintenance, repairs, educational materials, etc. If we exclude the expenditure for examinations and for school administration, the amount left over for other expenditure falls to 3,471 Rupees.

The arrangement whereby the school's material needs are financed with the amount remaining after paying the school's share of salaries and examination expenses, shows clearly that

the material situation of a given school is strongly linked to the ratio between school population and the number of teachers. This is because the larger the fee paying school population, the higher the quantity of fees collected and conversely. On the other hand, for a given school population, the higher the number of teachers, the lower the amount available for expenditures other than salaries and conversely.

The fact that a school to satisfy its material needs is dependent on a large number of paying pupils in relation to the number of teachers can lead to discrepancies between national interests and the school considered as a body with professional as well as financial obligations. It can also lead to discrepancies between the pupils' interest and the school's interest.

From the point of view of the school considered as a body with financial responsibilities, the "best" situation for meeting material needs is one where classes are overcrowded, where many paying pupils generate substantial school income and the lowest possible number of teachers minimise the school's payments on salary account. Taken to its limits this reasoning would lead to serious consequences for education.

Table 12. Himalaya Primary and Lower Secondary School, Khandbari, school resources and expenditures (August, 1976 - July 1977)

Expenditure	Rupees	Income	Rupees
Teachers' salaries	26 586	Entrance fees	210
Administrative salaries	3 976	Monthly fees	13 800
Miscellaneous	2 000	Examination fees	2 126
Educational materials	151	Government grants	19 957 ¹
Repairs and maintenance	590	Games fees	1 150
Prizes	300	Other fees	300
Examinations	1 200	Other sources	1 140
Games	500	Land	-
Library	317	Balance primary	-
Durable goods	2 000	Balance lower secondary	-
5 per cent contribution (District Office)	923		
Other	140		
Total	38 683		38 683

1. of which 16,507 Rupees in respect of teachers' salaries and 3,450 Rupees for the miscellaneous grant per primary pupil.

Source: Sankhuwa Sabha District Education Office, Khandbari.

An analysis of four Sankhuwa Sabha lower secondary school situations proves that this is true (see Table 13). Headmasters are obliged to favour the recruitment of the largest possible number of pupils and slow down the recruitment of teachers. This does not mean that headmasters make no effort to recruit teachers or do not try to reduce overcrowding in their classrooms. But it does mean that they lack an incentive to improve the teaching/learning situation in the classroom by improving the teacher/pupil ratio since this may react unfavourably on the possibilities for improving the material conditions of the school. Conversely, if the headmaster does manage to improve the teacher/pupil ratio, he will find it very easy to explain why for financial reasons, the material condition of this school is less than satisfactory.

In this connection, it may be noted that the policy of free lower secondary and secondary education for girls in 18 remote districts introduced by His Majesty's Government as from 1977 is really very commendable when seen as an effort to increase girls' enrolment which is at a very low level. The Government, however, provides nothing by way of compensatory grants for the loss of income and consequently schools, already hard pressed for resources, may find the provision is causing strains on their finances. As far as the schools which are located in those parts of Sankhuwa Sabha district designated as remote and which receive the full teacher salary grants are concerned, this policy of free education for girls does not affect them to the same extent as those which are located in the remaining parts of the district and which receive only the usual proportion of teachers' salaries. In addition, schools have to provide free studentships for meritorious and poor students as a certain proportion of their enrolment. All these provisions limit the school's financial resources and can also partly be responsible for the general material situation of the schools.

Leaving aside the above question, it should be noted that when income derived from fees does not correspond to the needs of the school, many aspects of these needs are not met. Firstly, the headmaster may not recruit adequate staff for administration and maintenance, as in the case of the Himalaya Lower Secondary School, Khandbari. The headmaster there, owing to the lack of an administrative assistant, has to devote his time to administrative work including the keeping of accounts and this gives him relatively little time for pedagogical matters.

Another item which is manifestly given a low priority in the school budget is the library. All lower secondary and secondary schools, according to the Education Regulations, are obliged to own a library but a visit to schools discloses that very few of them have library facilities which are worthwhile. In fact, resource constraints are a major reason for the absence or small provision of library books in schools. Development of good

Table 13. Lower secondary schools: amount per pupil available for materials and maintenance; constant teaching force and increase in number of pupils

	Janata LSS, Chainpur			Mahendra LSS, Manebhangyang			Jama Lyobi LSS, Dhupu			Smarada LSS, Trishule		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
Total pupils	118	150	206	177	227	297	146	180	242	88	119	197
Total teachers	7	7	7	9	9	9	7	7	7	11	11	11
Total fees	4 605	6 489	10 112	5 828	10 642	10 431	4 445	7 985	12 141	3 771	5 789	6 311
25% salaries (paid by schools)	2 183	3 565	3 917	2 572	4 053	3 478	2 458	2 805	3 717	2 256	3 971	3 528
Remaining fees	2 422	2 924	6 195	3 256	6 589	6 953	1 987	5 180	8 424	1 515	1 818	2 783
Ratios:												
Remaining fees/ number of pupils in Rupees	20	19	30	18	29	23	13	28	34	17	15	14
Number of pupils/ Number of teachers	17	21	29	20	25	33	21	26	35	8	11	18

library facilities could contribute a lot to the enhancement of pupils' performances and their level of understanding. Other items such as pedagogical materials which the school is supposed to buy with its own resources, namely, maps, posters, exhibits, etc., are also sacrificed for financial reasons.

The difficulties and the precarious situation as regards financing materials and the upkeep of the schools can also be explained by the uncertainty which is attached to raising income from sources other than fees. Generally, what is referred to in the school's budget as "other resources" are contributions by individuals. But it is not possible to plan such contributions, either financial or in the form of work, since it is uncertain whether they will in fact be made. Or even if contributions could be counted upon for certain, the time at which they would be made is not sure. The same may be said about income from the cultivation of land, which, where it exists, varies according to harvest conditions. Finally, the same uncertainty affects loans which obviously depend on many factors. There are thus structural as well as adventitious factors involved in planning for normal and regular levels of material supply for the schools.

4. Deficits and hidden deficits in school management

An analysis of the budgets of lower secondary and secondary schools, in relation to the realities of financing expenditures, shows that the material situation of the school is hardly reflected by what is written in the authorised budget for a given year. In fact, the real situation of schools regarding expenditures for maintenance, repairs and other material needs can vary from a "satisfactory" situation in a few cases where a normal planned budget corresponds with real expenditures, to a situation of deficit. In between these extremes, we find situations where there are more or less important discrepancies between the apparent reality as shown in the authorised budget and actual levels of expenditure as shown on a cash basis.

In general terms, one would expect that shortage of income would normally be associated with a deficit if planned expenditure on materials and maintenance exceeds the money needed to pay for it. In fact, an analysis of the school budget lends itself to the following interpretations:

- (a) It can happen that planned material expenditure appears to be "normal" in the authorised budget. But if the corresponding planned income does not materialise because of uncertainty attached to obtaining part of it, then the absence of a "planned deficit" merely hides a very low real level of expenditure.
- (b) If planned income is really too low, the budget may merely demonstrate the incapacity of the school to

finance maintenance, repairs and other material needs by showing in the expenditure column very small expenditures and, in some cases, no expenditures for material needs.

- (c) The authorised budget, at its best, shows a real deficit. This occurs when the amount of expected income is so low that not only the minimal expenditures for basic needs cannot be met, but the school's income does not include provision for paying the part of salaries which by law it is obliged to meet. Such a situation is shown in certain cases in Table 14. It can also be seen that the deficits affect mainly secondary schools which were all in a very delicate situation at the time of the team's visits. On the other hand, where "profits" are shown (and the concept of "profit" is far from clear), salaries and basic needs are met and certain additional funds are available for improvements in the lower secondary schools concerned.

A detailed study of the Wana Secondary School, which is an extreme case, is illustrative of the problems caused by the financing system for schools (see Table 15). On the income side, it should be noted that the Rs. 6,700 listed under the item "other resources" has a simple accounting function: these are not guaranteed at all and serve only to provide a balanced budget. In fact there is hardly any possibility of making up the deficit brought forward from the preceding year.

On the expenditure side, nothing has been allowed for repairs and maintenance, since these items were foregone in order to reduce the amount of the deficit. But in this case it should also be noted that expenditure for educational materials did not in fact amount to Rs. 4,000 as planned. The main expenditures were devoted to paying the teachers' salaries and allowances, examinations and the contribution of 5% of total expenditures to the district. Thus despite the cuts in expenditure items, the school has incurred a deficit. A study of the causes of the deficit shows that it is mainly due to the low ratio of fee paying pupils to teachers. In Wana Secondary School, there are 5 teachers but the school has only 72 pupils, so that the teacher/pupil ratio provides an inadequate amount of fees in relation to the 50% of the salaries which the school has to pay.

A number of implications of this situation seem relevant for policy on school finance. First of all we can look at the approach to the opening of schools and in this connection the pupil/teacher ratio seems to be a vital factor. The District Education Office has indicated that to avoid deficits, there must be a minimum enrolment before consent can be given to open a school. According to calculations made by the District Education Officer, to open a full fledged lower secondary school, namely, grades 4 to 7, without incurring a deficit, there should

Table 14. Statement of Profit and Loss of Secondary and Lower Secondary Schools (Academic Year 1975 - 1976)

Name of School	Place	Profit (Rupees)	Loss
<u>Lower Secondary Schools</u>			
Himalaya	Hedangna	1 615.99	
Jiwan Jupti	Mentewa	1 006.44	
Janata	Chandanpur	1 687.44	
Mahendra	Manebhanjyang		75.21
Jana Jyoti	Dhupu	5 016.27	
Sharada	Trishule	702.64	
Sarva Mangala	Ratamate	2 837.28	
Bhagavati	Chitlang	187.82	
Binod	Madiraikar		995.20
Shanti	Telloka	268.65	
Rameshwar	Mamling		595.29
Amaruwa	Ankhibhain	867.65	
Bagishwari	Dhungedhara	896.41	
Singheswari	Nundhaki		480.91
Sagarmatha	Tanku	2 008.12	
Jambhavati	Sinbhuwa	70.33	
Saraswati	Malta		152.86
Saraswati	Chainpur	7 010.88	
Himalaya	Khandbari	1 139.10	
Wana	Wana	2 874.49	
Madi	Madi	335.31	
<u>Secondary Schools</u>			
Himalaya	Khandbari		2 027.94
Saraswati	Chainpur		3 616.21
Wana Vocational	Wana		16 987.25
Madi	Madi		3 725.33
Totals		28 524.82	28 656.20

Source: Sankhuwa Sabha District Education Office

Table 15. Annual Budget: Estimated income and expenditure of Wana Vocational Secondary School, Wana (Academic Year 1976 - 1977)

<u>Income</u>		<u>Expenditure</u>	
	Rupees		Rupees
Government grants	20 000.00	Teachers' salaries and allowances	40 000.00
Examination fees	2 050.00	Administrative salary and allowances	2 500.00
Monthly tuition fees	26 000.00	Miscellaneous	1 000.00
Games fees	1 000.00	Educational materials	4 000.00
Library	-	Repairs and maintenance	-
Entrance fees	300.00	Prizes and awards	262.75
Other fees	700.00	Examination expenditures	400.00
Other resources (including donations)	6 700.00	Deficit of last year	6 987.25
Land	-	5% of expenditure (contribution to district)	1 500.00
		Sports	100.00
Total	56 750.00		56 750.00

be an enrolment of at least 160 pupils. For a full secondary school, it is necessary to ensure an enrolment of at least 200 pupils. This calculation seems to have been carried out with the idea of avoiding a deficit on salaries account. It does not seem that a "normal" amount of expenditure for repairs, maintenance and materials has been taken into consideration. Had this been done, the number of pupils needed for operating a new school would have been higher. However, it is important to bear in mind that if this criterion of being able to pay necessary expenditures for maintenance, repairs and other materials is fairly rigorously taken into account, the rate of school opening must show a decline. This poses the problem of the quantity of schools versus their quality. To what extent is it desirable to open a greater number of schools accepting at the same time that they do not have the possibility of guaranteeing a reasonable minimum of expenditure for their material needs?

There is no provision to finance eventual deficits in school accounts. Administrative solutions to such problems when they arise are therefore limited to a series of expedients. One of these could be, as suggested by the Sankhuwa Sabha DEO, that the Ministry should re-classify the secondary schools of the district to put them among the list of "remote" schools and subsidise 75 per cent of teachers' salaries at the least. Were such a solution to be adopted, it would consist in transferring the burden of the deficit to the state but of course the general principle that the government should not finance school deficits would not be affected.

Another way suggested by the DEO would be to obtain a loan from one of the existing organisations which provide them. If this solution was possible, it would consist only in postponing the financing of deficits in so far as a loan must be repaid sooner or later. A solution might be expected from rent income or if schools could generate new resources, for example, the earning of income through the direct cultivation of land. In fact, in Wana, Chainpur and Madi secondary schools, such measures have been adopted. But for reasons which will be discussed below, the expected income from land cultivation on the existing ownership of land will not be sufficient to wipe out deficits. For example, the anticipated income from land is, respectively for 1978: Wana Rs. 800, Chainpur Rs. 1,500 and Madi Rs. 3,000. In Khandbari Secondary School no such income can be planned because the school possesses no land for cultivation. In total, the planned incomes from land cultivation for the current year will thus be Rs. 5,300 while the deficit for the four secondary schools will be at least Rs. 25,000 without any expenditures being made for repairs, maintenance, etc. Considering all these aspects of school finance, the possible financial solutions - in the long term - which could allow the schools to work normally will be discussed in the next chapter

together with the financial problems of school building. Meanwhile, we shall examine some purely administrative aspects of school finance, mainly, those connected with the accounting process.

5. Administrative aspects of the management of school finances

According to the rules, the estimated budget of primary, lower secondary and secondary schools is prepared by the headmaster through discussion in and with the approval of the School Co-operation Committee. This body, whose main function is the material and moral support of the school, is composed of the chairman, who is always the chief of the village panchayat or a ward member, the headmaster as member secretary, a representative of the donors and a parents' representative. When the budget estimates have been approved at this level, they are sent to the District Education Office where they are placed before the District Education Committee. The Committee normally approves the school budget after making necessary changes. The District Office then submits the budget estimates of all schools in the district, within the framework of the school education financing directives of the government, to the Ministry of Education through the Regional Directorate and the Ministry then releases the funds to the District Education Office at the beginning of the fiscal year.

Basically the budget refers to scholarships, teachers' salaries and allowances, books and the "miscellaneous" allowance for primary schools, and in the case of secondary schools, vocational and science materials and vocational workshops. These are the expenses which are the responsibility of the Ministry of Education. It refers also to other planned income (fees and contributions, including rents) and to the expenditures already mentioned for maintenance, repairs and material needs of the school.

To obtain salaries and allowances for teachers, all schools make a requisition on a quarterly basis to the DEO with details of the numbers and qualifications of their teachers. Funds for each school are deposited quarterly by the District Education Office in the school account at the Chainpur or Khandbari branches of the National Rastra Bank. The headmaster then distributes the teachers' salaries and allowances and keeps the receipts. All the money earned by the school (fees, land revenues, etc.) is also deposited in the school account.

All expenditure from funds allocated by the government for the current school budget are part of the National Educational Development Fund. Up to last year they were received from the Ministry by the DEO on a quarterly basis. But since the 1976 - 77 current fiscal year, the Khandbari district, being a remote

district, receives the entire annual budget in a single instalment. This budget, as well as its distribution by school, is allocated under different headings for specific purposes. Neither the District Office, nor the school, are entitled to re-allocate the funds from one item to another.

Nevertheless, schools are authorised to allocate incomes from land, donations and school fees. This means that the school, with the theoretical approval of the School Co-operation Committee, itself decides which part of these resources will be spent on maintenance, furniture buying, repairs, etc. The existing rules prevent the headmaster from spending more than the approved annual budget. However, a school co-operation committee can authorise the expenditure of more than its approved annual budget if resources permit. The current account of the school is kept by the headmaster and he is required to send a six monthly report to the DEO about income, expenditure and the financial problems of the school together with the minutes of meetings of the School Co-operation Committee.

These steps are taken in order to allow the DEO to check whether decisions and actions made by schools during the academic year are in accordance with the regulations. Bills and receipts must be kept at the school for an audit control. If some are missing, the headmaster is supposed to reimburse the amount covered by the missing documents. The general rule is a strict centralised control of school expenditure by the District Education Office. However, inadequate staff at the DEO renders it unable to cope with the size of the audit task for over 150 schools in the district. This means that inspectors are used to an undue extent as substitutes for audit personnel. Recent re-organisation of Regional and District Offices on the recommendation of the mid-term evaluation will, hopefully, relieve the inspectors of this job of auditing school accounts.

Headmasters and teachers are often quite ignorant of accounting and budgeting procedures. It seems that the teacher training courses do not include elementary book-keeping in their syllabus. The result of this, combined with the fact that Sankhuwa Sabha district suffers from communication problems, is that school accounts are not well supervised and there are some problems and sometimes delay arising from the late arrival of documents and the way in which certain forms have been completed, since all funds for salaries and other items are disbursed when the required forms from schools have been received at the DEO.

Generally, lack of knowledge in preparing school budgets and ignorance of book-keeping largely prevent efficient management of school finance. It is possible that absence of these skills could inadvertently involve headmasters in charges of misuse of funds. Further, while the School Co-operation Committee has been given the responsibility for providing all expenses other than teachers' salaries which the government pays in

differing proportions according to the type of school and some other few items, all financial operations have been put on the shoulders of the headmaster. This has removed from the School Co-operation Committee all financial responsibilities except that of raising money from the people. This situation, where duties are greater than responsibilities, tends to generate conflict. Lack of control of the use of funds by those who are responsible for raising them from the population could create a climate of suspicion. Sometimes it can lead to a deterioration of the relationships between the School Co-operation Committee and school personnel and this, in its turn, can aggravate the difficulties of raising money for school maintenance, repairs and basic needs. Some indications of an unsatisfactory relationship between the population and the school can be found in the fact that the DEO has received complaints about irregularities allegedly committed by some headmasters in the district.

The problem of obtaining money for current expenses of the schools also has adverse effects on the teaching/learning situation. Thus in lower secondary and secondary schools where enrolment is low because of the sparse population and difficult terrain and school incomes are low since the schools have few assets, one of the jobs of the headmasters is also to raise funds for payment of salaries and other needs. This involves a lot of their time and has an obvious impact on the quality of instruction. It is quite obvious that the headmaster could only spend a lot of time on fund-raising activities at the cost of his pedagogical leadership, assuming always that he is able to give it.

The District Education Office is the centre where all the accounting and financial work is checked. Checking is undertaken on the basis of documents which are supposed to be sent regularly by the different headmasters and on those obtained by audit missions to the school. In fact the District Education Office cannot cope with this work properly: for example, though all the headmasters are supposed to prepare their annual budget, some of them do not know how to do so. Sometimes, because of shortage of personnel and work pressure, the DEO finds it impossible to look into the details of the budgets and current financial administration of the schools. It therefore happens that the DEO allocates funds on the approximate basis of the number of posts approved for a particular school. These funds can be in excess or in deficit according to the rules, for example, as far as the "miscellaneous" allowance per pupil in primary schools is concerned, and this can cause many difficulties.

It therefore seems that the problem of financing the material requirements of the schools has to be seen in its entirety. In our view, financial and organisational problems cannot be separated and these will be discussed in the next chapter.

CHAPTER IID. SOME ORGANISATIONAL AND FINANCIAL PROBLEMS RELATED
TO THE MATERIAL CONDITIONS OF SCHOOLS AND POSSIBLE
SOLUTIONS

1. Technical standardisation of school buildings and furniture

At present at the district level in Sankhuwa Sabha, when it is decided to construct a school building there is no technical guidance available to help those who build it. The building which results is in fact generally the product of a more or less happy marriage between the quantity of labour and monetary resources which the population is willing to provide for school building and technical knowledge of a traditional kind possessed by local craftsmen, such as carpenters. The same seems to be the general rule also as regards school furniture, such as chairs, benches, blackboards, cupboards and so on. It seems that the lack of technical guidance for school building and furniture making is a reason for technical deficiencies and unfavourable conditions for teaching and learning: poor protection against the elements, lack of light in the classrooms, poor or no acoustic protection, furniture inadapted to the physiological needs of the children and which does not last too well. Certain of these defects could be avoided without additional cost if technical guidance were to be forthcoming. Others would require more work or money but this would prove worthwhile.

It is suggested that to avoid most of these deficiencies, some kind of technical guidance might be given before the school is built. This help might take the form of supervision by technical staff of the construction process or the provision of written instructions on how to construct schools with the minimum technical requisites and also how to make furniture. This guidance should be understood by the administrative people responsible for school building, namely, the panchayat chairman or vice-chairman, so that they may avoid weaknesses in the construction and maintenance of buildings and furniture.

At the District Education Office level, there is at present no staff member who provides technical help as regards building construction and furniture making. Nevertheless, when the SADP provided assistance for the roofing of schools, technicians from

the Ministry of Public Works were consulted about the technical problems involved.

There are nevertheless examples of building work in the area being carried out under professional control provided by the Ministry of Education. This will be the case it seems, as mentioned by the Headmaster of the Khandbari Himalaya Secondary School when part of this school is rebuilt with the use of public funds. The construction of primary and lower secondary schools in Pangma has also benefited from advice from a Ministry architect. But control and advice are limited to the schools which benefit from SADP financial assistance and it seems that within the SADP area, this control is in fact restricted to schools nearest to the district headquarters, Khandbari.

At the Ministry of Education level in Kathmandu, a "technical unit" is in principle responsible for the elaboration of technical standards for school building and furniture making. In fact, it seems that the work undertaken at this level consists only in the control by Ministry staff of operations at building sites. Because of a lack of personnel, this type of control can only be carried out within a restricted area and the scale of activities is necessarily reduced. Even if this technical unit has produced written instructions about school buildings and furniture making, they have not yet reached district or panchayat level. It seems that the systematic elaboration and diffusion of simple standards and norms for buildings and furniture which could be understood by panchayat people could exercise a multiplier effect without greatly increasing the costs of operation of the technical unit. As a result the way building is undertaken and furniture built could be greatly improved.

2. Collection of local resources

The diverse problems affecting the financing of building and running schools in the Sankhuwa Sabha district bear essentially on one very simple question. Namely, how local financial resources for the building and supply of the needs of schools might be increased, and how these resources might best be managed in order to ensure their effective use. There is no doubt that at present in Sankhuwa Sabha, available financial resources are not enough to ensure that the needs of the children are met, in accordance with the plans and regulations of the government. It seems clear that a special effort should be undertaken to raise the level of expenditure of schools since this is a condition for improving the level of education. Nevertheless, it also seems that for financial reasons, there is no possibility that the government would be prepared to make the requisite effort in this direction and for some years to come, apart from certain technical modifications, the government will

continue to rely on local efforts for school buildings and also to a significant extent for the running of schools. The general policy of the government will be to encourage the direct participation of the population in the development activities of the country, including education. The problem is thus how to raise more financial and direct contributions from the local people in order to improve the material conditions of education.

At present the organisational structures of education at the district level appear quite classical and well ordered in accordance with administrative devolution of tasks. But this classical framework is not well adapted to the need for increasing the contribution of the population in the form of money and work. In this regard, the school administration is required to undertake tasks for which it has not been prepared. For example, headmasters in addition to teaching and looking after pupils in a pedagogical, human and form filling sense, are required to raise money and lead the School Co-operation Committee's efforts to manage the development of the school. In some cases, they are required to look after agricultural production and to sell produce. It seems that headmasters are not well prepared to fulfil such functions and that some functions can interfere with their duty to look after pedagogical matters. However, a recently established property management unit at district level could go a long way towards facilitating the job of headmasters in respect of the management of school lands.

At present, although the chairman of the village panchayat is normally chairman of the School Co-operation Committee, there does not seem to be a clear line of directives for the Committee as regards fund raising and school support activities. Nor does the district plan contain anything about the mobilisation of local resources, including land and land use, for schools. As far as these functions are concerned, the headmaster is in fact left alone. He is expected to solve the problem of finding resources for the school but there is very little organizational support. All that exists may be the personal intervention of the DEO or some influential person at the district level who may help the headmaster to obtain land in a given village. Headmasters are frequently asked to undertake commercial and agricultural activities at school level while administrative and financial support for these activities do not exist. In our view, this does not mean that it is a mistake to ask the population to make new efforts to finance their schools through agricultural and commercial activities. On the contrary, these possibilities are interesting, but it is necessary to consider how they could be undertaken on the basis of an administrative organisation which provides for a clear separation of functions as between the running of a school and the earning of resources with which to finance it.

3. Reform of popular participation and organisation for financing of schools

It is suggested that as a general principle, the school should not be a centre for fund raising nor for direct technical and commercial activities to finance its needs. Three reasons may be mentioned to justify this principle. First of all, as has been said previously, headmasters and teachers should concentrate on their pedagogical tasks. It can be said that today the fact that both pedagogical and economic-financial activities are undertaken by teaching staff partly explains in some cases why neither of these tasks are really performed well.

A second reason is that even if it were possible for the school to carry out both teaching and fund raising, the level of the latter, possibly including productive activities, would tend to be too low to allow a significant amount of money to be raised. Available manpower to undertake these activities would be insufficient and productive activities would tend to be sporadic and of low productivity. It seems likely that the combination of lack of experience on the part of teachers and difficulties of ensuring regular work would eventually lead to abandonment of productive activities by schools. In the most favourable situation possible that the school could cultivate a garden, this would contribute no significant amount of food in relation to the financial needs of the school. Finally, at the present time, the absence of adequate support structures for school economic activities at any level of the administration of education would make the generalisation of productive activities by the school difficult.

If the function of producer and money earner were not assumed by the school, it might be performed by the panchayats which potentially are better placed to earn money through productive activities, and together with the state, they might finance the local schools with resources raised from the economic activities of the population. In fact the school could become in financial terms the responsibility of the state and of the local panchayat in a more real sense than at present, and could function under the supervision and with the resources of both administrative and elected bodies.

4. The panchayat as an institutional framework for popular participation in financing of schools

At present the panchayat system, a traditional institution in the Kingdom of Nepal, plays the twin role of a political and an administrative body. It represents the backbone of the structure for mobilising the population and it is also designed as an instrument for promoting development. It would seem in this

regard that its role is limited to the encouragement of the population in general terms to make efforts for development. It hardly possesses effective means or instruments for carrying out economic development activities. The proposal to assign a productive role to the panchayats in contributing to school needs supposes that their role might be re-oriented towards active participation in economic development activities.

We are conscious that such a proposal largely exceeds the educational framework which constitutes the terms of reference of the team. Nevertheless it seems necessary to go outside this framework if one seeks to examine the main implications in related fields of activity of a single reform in the educational financing and organisational system. If this were not done, the inter-relations between educational and other activities would not be clear and proposals would obviously be incomplete. Of course, this suggestion, in general terms, would need to be made more precise and thoroughly examined if the general arguments which give rise to it seem relevant and acceptable.

At present, all the resources to provide income in an average panchayat budget represent transfers from the pocket of private individuals to public bodies of assets already created. No resources are provided by the payment of any service given by the panchayat to the population and no new wealth is created through productive activities. It seems reasonable to consider whether the panchayats, as institutional bodies could raise resources from their own economic activities since this happens in many countries. For example, in Europe, "communes" or other types of municipal council own forests, pastures with communal flocks, tourist facilities and so on, which provide them with resources to finance local improvements and enable them to make contributions to local services, including the communal school. A reform of the type envisaged would presuppose certain adjustments in the scope of the panchayats' activities and powers and the legal framework in which they operate. Among the rules that would seem to be required, some would refer to priorities in use of panchayat resources, including the financing of education and material needs of schools. A Panchayat Development and Land Tax scheme, implemented on a pilot scale, seems to be a useful idea.

It is suggested that some feasibility studies should be undertaken on an experimental basis to find out to what extent the panchayats in the Sankhuwa Sabha district might develop their productive earnings in the way discussed. As an example, the panchayats might play a more direct role in reforestation and the exploitation of forest products. This might allow not only better control of deforestation, a better policy of reforestation, but also an improved mobilisation of resources available through the exploitation of the forest. Of course such an activity, as well as other proposals, should be accompanied by a

campaign of information among the population. Further examples might also be taken: management of panchayat herds or panchayat fields could allow the earning of "new" money.

The role of the School Co-operation Committee might then be modified in the sense that the task of mobilising the people's contribution would be transferred to an elected body, namely, the panchayat assembly. The Committee could then concentrate on the task of checking the organisation of school finance, and relieve the headmaster of certain of his duties in this regard. In any case, and irrespective of whether a more fundamental change is made, it is suggested that school accounts should be operated by the joint signature of the chairman of the School Co-operation Committee and the headmaster of the school. The advantage of this change could be that malpractices if any, regarding school funds are reduced. It would also help the district administration in their auditing operations. It is also suggested that the School Co-operation Committee together with the DEO should assume a collective responsibility for the supervision and control of the school's budget.

According to this scheme, the panchayat would, together with its other political and administrative responsibilities, pursue economic activities on the basis of free enterprise tempered by a rigorous control of public administration, which would design the framework of these activities and check if the rules were being respected. According to panchayat officials whom we have met, it seems realistic and possible to give panchayat members responsibility for such activities. The level of knowledge, although not very high, seemed to us high enough to make the experiments worth while at least in some panchayats.

Within the framework of a developed productive role for the panchayats, the question of providing for the financial needs of the school would progressively become a problem of organising an improved relationship between the panchayat and the school.

III. Management of the teaching force

The guiding thought behind this part of our paper is that while much of the pre-service and in-service training of teachers, and administration of teachers, is determined by national arrangements, a great deal may be done at local level to improve the efficiency of teaching, and one judges national arrangements by seeing whether they are geared towards the effective betterment of the local situation.

In this regard it may be mentioned that the management of the teaching force includes problems of a very diverse scope and scale. They range from the day to day management of the teaching force by the headmaster at school level to problems of planning district, sub-national and national efforts to provide the requisite in-service and pre-service training of the teaching force. In this part, after describing the state of the teaching force in its quantitative and qualitative aspects at district level, we examine the problems of planning teacher training, the specific problem of female teachers and finally the day to day management of the teaching force.

CHAPTER IIIA. THE STATE OF THE TEACHING FORCE AT DISTRICT LEVEL

1. Quantitative state of the teaching force

In 1977 in the Sankhuwa Sabha district, there were 323 primary school teachers, 92 lower secondary and 27 secondary, namely, a total of 442 teachers. As can be seen in Table 16, the number of trained teachers has tended to increase regularly but in 1977 there was a decline in primary in proportional terms. This table shows clearly that teacher training remains a very important task in future years since the quality of education depends heavily on the qualification of teachers.

Although the number of teachers at all levels increased strongly and regularly from the year of implementation of the NESP, namely 1973 in the Sankhuwa Sabha district the increase was less than that of the number of pupils. This has led to higher pupil/teacher ratios at all levels, especially from 1976, as can be seen from the following table.

Table 16. Sankhuwa Sabha district pupil/teacher ratios by level

Year	Primary	Lower Secondary	Secondary
1974	18	15	20
1975	19	16	19
1976	27	20	22
1977	30	21	30

Source: Khandbari District Education Office

Although the data look acceptable, they nevertheless conceal important problems such as the size of primary grade 1 classes (often 50 to 60) and excessively large subject classes at secondary level. In the remote schools, the pupil/teacher ratio is in some cases higher than in the southern part of the district and in others, where teachers are responsible for more

Table 16. Teachers by level and training, 1972 - 1977, Sankhuwa Sabha district

Year	Primary			Lower Secondary			Secondary			Total		
	Total	Trained	%	Total	Trained	%	Total	Trained	%	Total	Trained	%
1972	233	62	26.6	54	20	37.0	24	4	16.7	311	86	27.6
1973	212	58	27.4	20	5	25.0	17	3	17.6	249	66	26.5
1974	231	91	39.4	75	31	41.3	22	8	36.4	328	130	39.6
1975	248	105	42.3	89	48	53.9	25	13	52.0	362	166	45.9
1976	279	122	43.7	98	57	58.2	26	19	73.1	403	198	49.1
1977	323	124	38.3	92	59	64.1	27	20	74.1	442	203	45.9

Source: District Education Office, Khandbari.

than one grade, there is a real problem of the ability of the teachers to cope with multigrade teaching.

2. Level of qualification of the teaching force

It is important to note, (see Table 17), that in comparison with the entire national education system, the district of Sankhuwa Sabha seems to be in a better position, except for primary, as far as trained teachers are concerned.

With regard to their qualifications, the authorities have made notable progress towards achieving their objective that each school should eventually and compulsorily be staffed by trained teachers. A trained teacher has been defined within the national plan as one who has passed the School Leaving Certificate or its equivalent in the case of primary, the Intermediate Arts or its equivalent for lower secondary, and the B.A. or its equivalent for secondary, and in addition has obtained a certificate after one year of training. It may be noted that persons in the Sankhuwa Sabha district who have not passed the appropriate pre-service examination, for example, teachers in primary schools who did not pass the SLC although they sat for the examination, have not hitherto been considered as trained for salary and statistical purposes after their year of in-service training at one of the teacher training colleges. The data shown in Table 17 would seem therefore to underestimate the extent to which in-service training at the teachers training colleges has contributed to the improvement of the qualifications of teachers.

Table 17. Trained teachers in relation to the total number of teachers (percentages) in Sankhuwa Sabha district, the Khandbari SADP area and Nepal

	Primary	Lower Secondary	Secondary	Total
1972 Sankhuwa Sabha	27	37	17	28
1977 "	38	64	74	46
1972 Khandbari SADP				
1977 "	49	52	67	51
1972 Nepal	29	21	18	27
1976 "	39	38	50	40

Table 17 shows that progress was made during the period 1972 - 1977 in the training of teachers for the three levels of school education. In primary schools, the difference in the proportion of trained teachers in the nine panchayats of the SADP Khandbari area and in the 41 panchayats of the Sankhuwa

Sabha district would seem to be due to the fact that trained teachers prefer the larger villages and lowlands to the more remote areas. They are influenced by the fact that salary differentials do not fully cover living cost differentials as between SADP Khandbari area and the more remote northern areas. One may also see from the table that in the district, and in Nepal, roughly two thirds of the primary school teachers are still untrained. In five years the proportion of trained teachers in the primary schools of the Sankhuwa Sabha district increased from 27 per cent to 38 per cent, or less than the improvement in Nepal as a whole, from 29 to 39 per cent. This difference suggests that to achieve the Government's objective unless special measures are taken to reinforce existing policies, a substantial number of years will be needed before all the primary schools are staffed by trained teachers in the Sankhuwa Sabha district.

In the lower secondary and secondary schools on the other hand, the proportion of qualified teachers has increased more rapidly in Sankhuwa Sabha than in Nepal as a whole. However, the data above do not allow an analysis of the qualification structure of the teaching force. At present statistics are not available showing to what extent the teachers in each school are qualified to provide teaching in the various subjects included in the secondary and lower secondary curricula. The collection of such statistics would be useful since, as has been suggested above, there are severe shortages of qualified teachers of mathematics, science, foreign languages and geography in the Sankhuwa Sabha district and in Nepal.

There would seem to be two distinct but related problems which are the subject of action at the district level. The first is to provide a sufficient amount of in-service training and knowledge of teaching and learning so that the untrained teachers, who at present constitute the largest and the most unstable group in the stock of teachers, are reduced in number. The second is to relieve the scarcities of subject teachers at the lower secondary and secondary levels. In the Sankhuwa Sabha district, as of 1977, out of 323 primary teachers, 33 out of 92 lower secondary and 7 out of 27 secondary teachers were untrained. In addition, a certain number of teachers were employed without having the relevant basic education, that is, SLC or Intermediate Arts or B.A. and therefore did not receive the pay scale for the level involved. This was a matter for individual action through private courses and was not being solved through training courses organised in the area. The District Education Office was seeking to solve the problem of training by concentrating on the selection of personnel for "long" training courses leading up to the award of a teachers certificate.

Primary teachers follow a two semester course of five

months each at the Dankhuta campus of the Tribhuvan University Institute of Education. Normally they leave in July and return to their schools in December, serve as teachers for half a year and then leave for their second semester in Dankhuta in the following July. In 1976 - 1977 6 teachers out of 189 were selected for this training or about one thirtieth of the untrained stock. In addition three teachers from 25 lower secondary schools, responsible for pre-vocational education, were sent to Ilam for a two year training course (intermediate certificate in education) in vocational education and three others were sent to Dankhuta for a one year's course which represents a "half" Institute of Education diploma. It may be seen that the training effort is more intensive at the lower secondary than at the primary level. At the secondary level, this difference is even more striking. Two teachers out of 27 with B.A. degrees, were sent in 1977 to Kirtipur Campus for a half B.Ed. in two five months segments. Two teachers were sent for a B.Ed. 20 months course in vocational subjects at Sanathimi Campus and one teacher was sent to Rampu Campus for a B.Ed. in agricultural education.

The selection of persons for long training courses is made by the District Education Officer on the basis of his visits to the schools, advice received from supervisors and other factors. No systematic attempt is made to obtain the advice of school heads. There is no committee which advises on the selection of persons for training. The balance in selection as between primary, lower secondary and secondary teachers is given by the Ministry of Education and transmitted to the district by way of the region as part of the annual planning arrangements. This is a matter of finance since the teachers are paid during training. All salary expenditure and costs connected with the training of primary and lower secondary vocational teachers are paid by the Government, other lower secondary training salary costs are paid to the extent of 75% by the Government and 25% by the school. For secondary teachers, salary costs in training are normally shared between the Government and the school.

Training courses seem inevitably to involve some disturbance of the work of the schools because of the difficulty of replacing teachers who go for training and also the effects on classroom teaching of mid-term transfers. But adverse effects on the school environment are expected to be offset by the benefits of improved teaching and greater attachment to a teaching career, so long as the trainees return. Those attending courses have to sign a contract for five years teaching before being accepted for training, and in Sankhuwa Sabha district very few trained teachers have resigned either during or after this period. In the few cases where following training they do not return to teaching, it has proved hard to oblige them to do so. Those who fail to return are usually seeking

further education with the possibility of better paid work in universities or in public administration.

As regards the second problem, namely the provision of in-service training in subject teaching, the Sankhuwa Sabha District Education Office provided short term training in 1977 for 156 primary teachers out of 313 as well as for 37 lower secondary and 7 secondary teachers. This training consisted of three days work directed to the purpose of making teachers aware of what matters should be covered, and to some extent the detailed sequence in the teaching/learning process for the different subjects, given that no teachers' guide books were available. In 1976 a one day meeting had been held for 122 teachers, one from each primary and lower secondary school, concerning the improvement of questions for tests at the end of each term and the preparation of annual examinations. In 1977 two three day meetings were held at the Khandbari and Chainpur secondary schools respectively at which the teaching of science, mathematics and English as a foreign language were discussed. The staff for these seminars was made up of the DEO, the Assistant DEO, four primary and one secondary inspector and certain secondary school teachers. The cost of the seminars, mainly subsistence allowances for the participants, was 3,500 Rupees (approximately \$ 300.00).

While these seminars were judged by the teachers who attended them to be useful, they were not thought to provide a firmer basis of competence for primary school teachers who had not been trained. Nor was it believed possible to deal with the lack of trained teachers of science, mathematics and foreign languages through these rather brief approaches. What was said to be required for the primary teachers was a concentration of all available resources on their improvement, including inspectors, heads, books and materials, correspondence, radio and in-service training at the district level. For the lower secondary teachers, particularly of science subjects, the DEO had proposed to the Regional Director that given the great difficulties which had been found in solving the science teaching in-service training problem at the national level, it was urgently necessary to take measures at the district level. The DEO had therefore proposed to the Regional Director of Education that a two months course in science and mathematics should be organised during the summer vacations (rainy season) as part of an effort extending over a number of years to train lower secondary teachers by in-service methods. The faculty for this course, which would take place at the Madi Secondary school, would be the Madi teacher of science, teachers from the three other secondary schools in the district and the Assistant DEO who holds a B.Sc. degree. This proposal could not be pursued since no money was found to be available for this purpose.

The longer term problem of the supply of qualified teachers

in the Sankhuwa Sabha district may therefore be considered also in relation to national policy on pre-service and in-service training of teachers and the measures which are taken to ensure that the more remote areas of the country can build up their stock of qualified teachers. This is the subject of the next chapter.

CHAPTER IIIB. PLANNING OF PRE-SERVICE AND IN-SERVICE TRAINING OF TEACHERS

1. The targets and pre-service training

This chapter is concerned with the problems of producing and re-training the teachers required for the national educational plan. We approach what is being done in accordance with the government's plans with a view to discussing the effectiveness of the planning and implementation of teacher training. In so doing, we have not included within our terms of reference consideration of the extent to which the educational system and particularly the system of training teachers is equipped to provide adequately in terms of curriculum and methods for the spread of scientific and technical education and thinking sought by the authorities, or how far education as a single variable in the social and cultural system of Nepal is able to do so. We have noted that there are profound, humanist elements in the cultures of Nepal which do not seem easily adaptable to a questioning scientific and rational view of nature and to the modes of thought and behaviour characterised by rationality.

The organisation of teaching and diffusion of science and mathematics in the traditional cultural environment of Nepal would seem to have been associated with attitudes of some indifference to science which arise out of the abstract nature of science in relation to the environment and which have been partly responsible for the difficulties encountered in teaching and learning science subjects. These considerations would seem to involve a deep level of analysis of the curriculum content of science education and we take it that this has been undertaken. We assume that science education in the schools and teacher training centres represents the best national thinking on what is needed to help create the new rational, scientific and practically minded man in Nepal. In this connection, we have not questioned the proportions of curricula devoted to science and mathematics within school education.

It is not at present possible on the basis of existing data to form any precise idea about the rate at which the

government's intention to encourage scientific and technical education will be linked with the solution of the problem of shortage of competent teachers of those subjects in the schools. This is because certain of the parameters implicit in the educational programmes of the fifth plan (1975 - 1980)¹ have not been made known. We will therefore discuss first the plans which have been prepared by the national authorities to train and re-train teachers, particularly science teachers. Second, we will consider certain specific questions of the organisation of in-service training in the more remote areas.

The fifth plan as concerns teacher training is expressed as a series of targets for the Institute of Education of Tribhuvan University, Kathmandu, and its 14 constituent training campuses for each of the years 1975 - 1976 to 1979 - 1980 inclusive. The targets for the Institute of Education appear in the plan document together with targets for 10 other institutes and centres under the aegis of the University (see Table 18). Whereas the Institutes of Engineering, Medicine, Agriculture and Animal Science, Forestry and the Centre for Applied Science and Technology, present data for enrolments as well as output on a year by year basis, the Institute of Education in common with five other institutes, namely Commerce, Social Sciences, Science, Law and Sanskrit only provide annual projections for enrolment. Output beyond the year 1976 - 77 for the Institute of Education is not fixed perhaps because of difficulties in assessing the attrition rate.

The document does not show what assumptions have been made in approximate terms as concerns needs in Nepal for the graduates of the different Institutes of Science and it is not therefore possible to know how many graduates of those institutes are expected to enter school teaching. It seems to be the case that those responsible for the supply projections did not publish estimates of needs because it was felt that the annual output from the Science Institutes would easily be absorbed in employment outside the education sector. This interpretation was confirmed by a number of deans of institutes who were interviewed by the team. They were unanimous in the intuitive view that there would be a very low flow of graduates from their institutes into teaching within the medium term. It was therefore thought that the Institute of Education will have to bear an important part of the responsibility for the training of school teachers of science, mathematics and technical subjects in the years ahead. At present, as is discussed below, there is a shortage of qualified entrants to the Institute so that in the short term the importance of in-service training to improve the competence of

1. "Educational programmes in the Fifth Plan", Manpower Subdivision, Planning Division of the Ministry of Education.

Table 1C. Targets of the Institute of Education

Manpower category	1975 - 76		1976 - 77		1977 - 78		1978 - 79		1979 - 80		Total	
	Enrol- ment	Output	Enrol- ment	Output	Enrol- ment	Output	Enrol- ment	Output	Enrol- ment	Output	Enrol- ment	Output
A. High Level												
1. Teacher Educator	50	10	60	30	60	35	65	35	65	40	300	150
2. Secondary Teacher Training ¹	750	556	1 300	-	1 400	-	1 450	-	1 540	-	6 440	-
Total	800	566	1 360	30	1 460	35	1 515	35	1 605	40	6 740	150
B. Middle Level (Certificate)												
1. Primary Teacher Training ¹	2 180	1 710	2 520	-	2 700	-	2 400	-	2 300	-	12 100	-
2. Lower Secondary Teacher Training ¹	2 230	590	2 870	-	3 310	-	3 310	-	2 790	-	14 510	-
Total	4 410	2 300	5 390	-	6 010	-	5 710	-	5 090	-	26 610	-

1. Output from the enrolment since the year 1976 - 77 not fixed.

Source: Ministry of Education, Planning Division, 5th Plan data.

Management of the teaching force

serving teachers, particularly in lower secondary schools, is increased.

More generally, it is necessary to consider how national measures affecting teacher supply may affect the situation in local areas. This is a problem of needs and training. Since the projected annual output of teachers is not stated beyond 1976, the educational programmes in the 5th Plan document do not permit any systematic attempt to confront projected output with the needs which are consequent on national policy aims. However, in the absence of any official data relating to needs/supply analysis, it is possible, on the basis of aims stated in the N.E.S.P. (1971 - 1976) to arrive at implicit needs for pre-service and in-service training. Table 19 shows that, taking the enrolment targets contained in the National Plan¹, increased enrolment would involve, other things being equal, a need for 8,105 teachers by 1980. Additional further needs would arise from replacement of teachers who leave the school system because of a transfer, retirement, illness or death. Data on this "wastage" factor were not available in Kathmandu at the time of our visit. Certain further needs could arise in respect of pupil/teacher ratios. The pupil/teacher ratios included in the National Plan were 30:1 in primary schools (now raised to 40:1) and 25:1 in lower secondary and secondary schools. From 1972 to 1976, the primary ratio increased from 14.6 to 31.0, close to the NESP stipulation even though classes of 60 to 70 pupils were the rule rather than the exception in Grade I of primary in all areas other than mountain districts. The pupil/teacher ratio in lower secondary schools declined from 49.5:1 in 1972 to 24.0:1 in 1976 - a more desirable ratio by NESP standards (25:1). The secondary ratio rose slightly from 20.0 to 21.5. Apart from primary where measures to alleviate the overcrowding in Grade I would lead to increased needs for teachers, the national data do not indicate unsatisfactory ratios for the secondary level. Our own experience in Khandbari, however, confirmed the statistical data that ratios in secondary schools are substantially less favourable in this remote area than national data suggest and that action is needed to improve them in some districts. This would imply that secondary ratios in the urban centres would be more favourable than the national averages.

A further factor concerning the needed stock of teachers is the distribution of the lower secondary and secondary level teaching force by main subject qualification. While the Fifth Plan contains specific reference to arrangements to train 900 additional teachers of technical subjects and to construct

1. The Fifth Plan contains a target for enrolment in upper secondary of 40% of lower secondary enrolment whereas the National Plan target was 50%.

Table 19. Stock of teachers (Nepal) in 1976 and 1980

		% Enrolment		% Enrolment target	Increase
Primary	20 775	59 ¹	22 383	64 ¹	1 608
Lower secondary	7 856	29 ²	13 406	50 ²	5 550
Secondary	3 439	39 ³	4 386	50 ³	947
Total	32 070	-	40 175	-	8 105

1. percentage of age group 6 to 8 years

2. percentage of total primary enrolment

3. percentage of total lower secondary enrolment

Sources: Ministry of Education, Statistics Section and Fifth Plan 1975 - 80.

additional workshops and 75 model vocational schools in each district of the country, there is no specific plan for the solution of the shortage of subject teachers for example, of science, mathematics and foreign languages. It would seem desirable that data on needs for subject teachers in secondary schools should form an element of such a plan.

Another important factor in determining teacher training needs arises from the aim, contained in the Plan, that each school must, compulsorily, be staffed by trained teachers. Table 20 shows that in order to give effect to this aim a total of 19,189 untrained teachers required training as of 1976.

Table 20. Needs for training of untrained teachers in 1976 (Nepal)

	Stock	Percentage untrained	needs for training
Primary	20 775	60.8	12 631
Lower Secondary	7 856	61.6	4 839
Secondary	3 439	50.0	1 719
Total	32 070	-	19 189

In this connection, the authorities would seem to have accepted the principle that all those who are at present untrained teachers are eligible for training for the level in which they are at present employed. The implementation of this principle would appear to depend on the extent of the financial arrangements under which teachers are paid while undertaking training, the enrolment capacity of the teacher training colleges and the extent to which the award of training certificates is accompanied by an increase in

salaries. This does not mean that the shortage of some subject teachers will be solved.

Recapitulation of the elements available concerning needs for and supply of teachers is shown in Table 21. While it is not possible to draw any conclusions in the absence of output projections and results in terms of enrolment and output for 1976 and 1977, (for example, what wastage occurs in pre-service teacher training), the data would suggest that, with regard to needs, planned output may be satisfactory in aggregate or perhaps more than can be absorbed at the secondary levels but less than sufficient at the primary level. It would also seem to be necessary, in view of these crude data and the difficulties which were found in the Sankhuwa Sabha district in achieving a satisfactory rate of in-service training of teachers, particularly primary teachers, to examine whether teacher training staff and resources are in fact sufficiently employed in the 14 campuses of the Institute of Education and whether they could not be providing more in-service training.

Table 21. Minimum requirements for teachers, 1976 and enrolment in teacher training campuses (1976 - 1980) to meet Fifth Plan targets

	Pre-service courses for increase in stock	In-service certificate courses to eliminate untrained teachers	Total training course needs	Total planned enrolment in teacher training campuses
Primary	1 608	12 631	14 239	12 100
Lower				
Secondary	5 550	4 839	10 389	14 510
Secondary	947	1 719	2 666	6 440
Total	8 105	19 189	27 294	33 050

1. See also Table 18, Targets of the Institute of Education.
Source: 5th Plan data and calculations made by the team.

2. In-service training problems

The problem of up-grading the qualifications of existing teachers is one of finance as regards the payment of serving teachers while they are studying and of their replacement. Teacher training under the aegis of the Institute of Education is organised in 14 centres of which one in each of the four regions pro-

vides diplomas and in Kathmandu post-graduate degrees. There are four levels of training:

(a) Primary, where, after two years of work, teachers are paid their full salary while they complete the extension course at one of the campuses which as from 1976 leads up to a certificate in primary education. The certificate is taken in two segments of five months interspersed with a return to teaching for about one year. It involves study of mathematics, a foreign language, social studies, Nepali, physical training and art as well as teaching problems and methods. This course entitles the unqualified teacher to receive a pay increase of 35 Rupees a month, that is, from 150 to 185 Rupees. A teacher with school leaving certificate with a basic salary of 225 Rupees obtains an increase to 260 Rupees and the course is counted as half of the Institute of Education diploma. There is thus a problem for the untrained teacher who did not pass SLC of making arrangements to pass it and thus accede to academic accreditation and higher rates of basic salary. It is, however, to be noted that the Government has made a provision for such unqualified teachers to take the SLE examination on a partial basis.

(b) Lower Secondary This involves two years work at a college, leading up to the Intermediate diploma. Qualified, untrained lower secondary teachers take only the "half Institute of Education" course in two segments. The full general Institute of Education course involves general education (Nepalese, Nepal studies, English, art and music 15%), psychology and methods (25%), major option (Nepali, English, Social Studies, physical training, mathematics (45%)) and minor option (15%). It may be noted that while the School Leaving Certificate includes obligatory science, vocational training and mathematics, these subjects are not obligatory in the Institute of Education (general course).

(c) Secondary The B.Ed. degree, with a major and minor option taken two years after the Certificate course in Education or equivalent. Efforts are being made by District Education Officers to select suitable secondary teachers to follow the two year B.Ed. course with a major option in agriculture at Rampur. In addition it is proposed to provide a one semester course in Kathmandu in Education for holders of B.Sc. diplomas, but since persons who follow this course will receive no additional pay, it seems doubtful whether they will be well motivated.

(d) Teacher educators Courses are proposed in the Plan for a total enrolment of 300 persons (see Table 18). Information on the nature of the course and the distribution by main field of study was not obtained at the time of our visit.

3. Training at the local level

As regards in-service training for science teachers, this could be a responsibility of either the Institute of Science or of the Institute of Education. At present the Institute of Science is not providing training for teachers since, as the Dean of the Institute of Science saw the situation, its role is at present to produce graduates in science and technical subjects for the economy and those who will undertake post-graduate work. Although at present the staff of the Institute of Science are not involved in the in-service training of science teachers in the schools, it was thought that the Institute of Science facilities might become available in two or three years time to train personnel in mathematics and general science.

The Institute of Education possesses a total staff of 300 teachers in its 14 campuses, of these only 30 in Kathmandu and Pokhara are qualified to teach the teachers of science. The Institute of Education has sought to train science teachers in the B.Ed. course with a science specialisation. In Kathmandu (Mahendra Ratna) facilities were prepared in 1977 for the entry of 100 Science Majors. Mainly because of weakness in mathematics only 50 entrants could be accepted and of these only 30 possessed adequate mathematics. The Science Faculty would therefore appear to be under-employed. At Pokhara which is also staffed to train persons at the B.Ed. level with a science major, there were very few students who opted for science and the same situation of under-utilised facilities prevails. In view of this situation and the fact that short seminars lasting for two or three days, as has been mentioned above in Sankhuwa Sabha, are making no real impact on the training problem, the Textbook, Curriculum and Training Division and the Institute of Education are beginning to approach the problem in a new way.

Since the 30 teachers in the Institutes of Education are not able to come to grips with the problem of training the science teachers, particularly lower secondary, and the monsoon makes their travel to the 50 (out of 75) hill districts involved virtually impossible during the long holiday, the burden may now be placed not only on the 30 teacher trainers but also on suitably qualified secondary teachers, supervisors and district officers. These persons, with adequate briefing and guidance from the Institute of Education would be responsible for providing a recognised intermediate Education course, with a science specialisation, over a period of three successive vacations. This could finally resolve the almost desperate problem of the shortage of science teachers in the hill districts. A similar approach is being considered by which the level of teaching of mathematics and English might also be raised. The problem of cost which, as mentioned above, did not allow a long science teachers course to be organised in the Sankhuwa Sabha district, was not regarded

as insoluble.

At the same time, on the spot training is provided by teams of two to three instructors who are deputed to districts and who, in co-operation with the local supervisors and headmasters, organise courses for untrained primary teachers. These teams, during a semester long training course, train groups of 30 to 40 teachers, men and women respectively, in areas where such a number can be reached, in the curriculum, the use of educational materials and evaluation techniques and in lesson preparation. After this semester, further training will be given to the most promising teachers. The Institute also has recently introduced distance learning courses and mobile training camps for improving the qualifications of teachers.

1. The facts

The training of women teachers for schools in the Sankhuwa Sabha district is undertaken mainly at Dankhuta campus of the Institute of Education. In this chapter we intend to show that the progress which has been achieved in the education of girls in the Sankhuwa Sabha district is a result of organisation in response to problems which affect the supply of women teachers in Nepal as a whole. The training of women teachers may be seen in relation to the development of the education of girls. Earlier we noted that, apart from economic factors, there are a variety of social factors which inhibit the growth of girls' education. In 1976 total school enrolment of girls in the Sankhuwa Sabha district constituted only about one fifth of total enrolment when, in fact, the female population accounts for a little more than half the total. This gives an idea of the degree of disparity in participation in education of the two sexes. Seen in this context, the role of women teachers has much relevance and great potential, particularly for the expansion of girls' education.

The considerable efforts made by the Government to bring up the level of overall school enrolment have resulted in more than doubling girls' enrolment over the period 1972 - 76 (Table 22). But when we consider girls' enrolment as a proportion of total school-going children, it does not even form 20 per cent. However, during the period in question, total participation has risen from 16.5 to 19.4 per cent in the country as a whole and slightly more in Sankhuwa Sabha. As we have noted earlier, the proportion of girl pupils is highest in primary and lowest in the second cycle of secondary.

The relatively low proportion of girls in the total participation has some bearing on the number of women school teachers. Though the number of women teachers has increased by 127 per cent over the four year period, it still constitutes only 8.6 per cent of the total (Table 23). The small proportion of women teachers

today is, however, also a consequence of the narrow base in the year 1972. It is also interesting to note that while the number of women teachers has increased by 127 per cent, the total number of teachers has increased by only about 20 per cent during the period.

Table 22. Enrolment of girls, Nepal

Year	Girls' enrolment	Girls' participation rate	Increase in girls' enrolment 1972-76
1972	86 307	16.5%	
1976	175 208	19.4%	103%

Source: Ministry of Education

Table 23. Comparative increments in total and women teachers, Nepal

Year	Total teaching force	Increase in teaching force	Women teachers	Increase in women teachers
1972	26 641		1 213 (4.6%)	
1976	32 070	20.4%	2 716 (8.6%)	127%

Source: Ministry of Education

An analysis (Table 24) of the distribution of women teachers at the three levels of school education reveals that the primary level accounts for the highest percentage of women teachers and the secondary level the lowest in both years. A closer look at the distribution also discloses that at the lower secondary level the percentage of women teachers has increased from 16.1 per cent in 1972 to 25.3% in 1976, while at the other two levels it has declined. This suggests that some women teachers may have become lower secondary teachers through upgrading their qualifications. The table also shows that the greatest increase in women teachers has been at the lower secondary level - 259 per cent in the four year period.

There has been a remarkable increase in the proportion of trained women teachers. Analysis (see Table 25) reveals that this overall increase has been at all levels with the secondary level showing the greatest percentage increase. This shows that teacher training courses have been attractive to women teachers. The percentage of trained women teachers in the total is higher than that of men teachers.

Table 24. Number and percentage of women teachers by level

Level	1972		1976		Increase % 1972-76
	Women teachers	%	Women teachers	%	
Primary	830	68.4	1 706	61.8	106
Lower Secondary	195	16.1	700	25.3	259
Secondary	188	15.5	355	12.9	90
Total	1 213	100	2 761	100	

Source: Ministry of Education

Table 25. Trained women teachers by level

Level	1972		1976	
	Trained	%	Trained	%
Primary	268	32.3	651	38.2
Lower Secondary	41	21.1	273	39.0
Secondary	58	32.1	232	65.4
All levels	367	30.3	1 156	41.9

Source: Ministry of Education

Table 26. Trained teachers by sex and level (percentages)

Level	1972		1976	
	M	F	M	F
Primary	28.9	32.3	39.3	38.2
Lower Secondary	20.6	21.1	38.3	39.0
Secondary	17.4	32.1	48.3	65.4
All levels	26.7	30.3	40.0	41.9

Source: Ministry of Education

When we study the trained teacher profile by sex, we find that overall the trained percentage has risen from 26.7 per cent in 1972 to 40 per cent in 1976, while the corresponding rise as regards women teachers has been from 30.3 to 41.9 per cent. There has been an increase at all levels for both sexes - the percentage increase at lower secondary and secondary levels.

being more favourable for women. This suggests that given a proper incentive mechanism for women as concerns housing, allowances and payment incentives on qualification, teaching could prove more attractive for them.

2. Questions of teacher training for women

Realising that expansion of girls' education in the context of Nepal is as much a problem of social attitudes as anything else, the Government with Unicef support launched an "Equal access of women to education" project in 1970. The project was first implemented in Pokhara, a district town of the Western region. The project is mainly designed to train primary teachers, particularly for the hilly and mountain regions. Apart from providing primary teacher training courses, the project also provides opportunities for upgrading the qualifications of girls. So far it has been expanded to two more centres on campuses of the Institute of Education, one each in the Eastern and Far Western regions. In the Eastern region, the Project Centre is located at Dankhuta, while in the Far Western region it is established in Nepalganj. During the Fifth Plan period (1975 - 80) two more such centres will be established.

Attached to each of these five centres, there are or will be hostel facilities. A hostel accommodating 100 students has already been built in Pokhara. Construction of hostel facilities in the remaining four centres is under way with NORAD (Norwegian Agency for Development) support. Hostel facilities in 10 secondary schools will also be built by the same agency. These secondary schools will serve as feeders to the main training centres.

Women joining the course under the project are provided with maintenance allowances, uniform and free tuition during the period of their training. The training course lasts ten months and on the completion of the course, the trainees are required to teach in primary schools.

In fact, every year a team comprising representation from the Institute of Education and the Ministry of Education make visits, particularly to remote districts, to select girls thereby saving them the trouble of coming to the main centres to apply. Preference is given to girls from disadvantaged social groups and remote regions.

Though the Pokhara Centre was established in 1970, Dankhuta and Nepalganj began only in 1973 and 1976 respectively. The three centres together have produced a total of 623 women primary teachers, the breakdown of which is as follows: Pokhara - 339; Dankhuta - 237; Nepalganj - 47.

Special projects such as those mentioned above are not available for training lower secondary and secondary teachers.

The various campuses of the Institute of Education, however, are responsible for producing all types and levels of trained teachers through their regular programmes.

In spite of all these incentives under the above project, the problem is one of finding girl applicants for the course in adequate numbers. Utilisation ratios of the facilities available at the currently operating three centres highlight this problem, as shown in Table 27.

Table 27. Teacher training, Utilization of capacity in three women's centres

Centre	1976		1977	
	Capacity	Utilization rate	Capacity	Utilization rate
Pokhara	100	52%	100	69%
Dankhuta	100	74%	100	50%
Nepalganj	50	70%	50	24%

Source: Ministry of Education

The reasons for this may be one or a combination of the following. First it is possible that projects still lack extensive publicity among parents. Secondly, the team may be selective in recruiting in order to ensure that wastage does not occur to any considerable extent. Thirdly, many parents do not allow their daughters to join the course. However, a study is required before specifying any of these factors as very crucial.

Experience has shown that trainees, particularly from the Far Western region, are hard to get because of the generally low level of overall education compared to the Central region. The enrolment data in Table 28, though available for only one year, nevertheless provide a glimpse of the overall situation in the teacher training courses in the four regions into which the kingdom is divided.

From Table 28, it is evident that numbers of women students on teacher training courses in the Central region are greater than any other region. This is largely because of the concentration of many of the urban centres in that region. However, it is interesting to note from the table that whereas the total enrolment in the Central region is slightly over three times the enrolment in the Far Western region, enrolment of women trainees is more than fifteen times as great. In a small way this gives some insight into the problem of recruitment of women trainees in regions other than the Central region.

The disparity in the distribution of women teachers is more pronounced at the district level. The data in Table 29

Table 28. Institute of Education Campuses. Enrolment of women students

Region	1976/77		Women as % total
	Total Enrolment	Female Enrolment	
Far Western	741	40	5.4
Western	781	144	18.4
Central	2 501	619	24.8
Eastern	588	75	12.7

Source: Ministry of Education

Table 29. Women Teacher Population (Primary level) 1976

District	Total No. Teachers	No. Women Teachers	% Women Teachers
Sankhuwa Sabha	279	20	7.2
Kathmandu	737	292	39.7

Source: Ministry of Education

represent the situation with regard to women teachers in two districts with relatively extreme characteristics.

Sankhuwa Sabha being a remote district has only 7.2 per cent of its primary teachers as women whereas Kathmandu, the district containing the capital, has about 40 per cent. Future government efforts aiming at the expansion of girls education need to take this situation into account.

To sum up, the problem of organizing women teacher training courses is not limited to increasing supply alone but it is also related to distribution at the regional and district level. A more rational approach in planning the location of different training projects and the intake into them needs to be adopted and a better incentive scheme devised for making the course more attractive.

CHAPTER IIID. CURRENT MANAGEMENT OF THE TEACHING FORCE

1. Administration at school level

Management of the teaching force includes the actions of the inspectorate, which are discussed in part V of this report, and those of headmasters and staff of the district offices. In this chapter, we consider some of the problems in managing the teaching force and the personnel who are required to solve them.

In so far as headmasters are concerned, the team sought to find out to what extent they were qualified to give leadership to the teachers in the school and whether their administrative duties allowed them time to do so. This was seen to be a function of the presence or the absence of administrative assistants. Normally one or two people are employed to undertake administrative work. But this is not always the case in the district, for instance in all primary schools, there are no specialised staff for administrative work which, in fact, is done by the headmaster.

The headmaster not only does not receive training in school administration or accounting, but in addition is often not in a position to provide leadership in educational matters to the teachers since he may not always be a trained teacher. The rule is that unless headmasters are trained, they cannot be confirmed in their posts. In order eventually to confirm these headmasters in their posts on completion of their training, announcements of vacancies for their posts are not yet made in the district. In addition, criteria for selection of headmasters are still not fixed. It is possible that the senior most qualified teacher in a given school where there is a vacancy may be chosen if he seems a reasonably good administrator, has leadership qualities and knowledge of accounts, teaching experience particularly in remote areas, or honours and prizes, in-service training certificates, etc. Recommendation from the former headmaster of a given school can also play a role in selection. The DEO makes his proposal to the Education Service Commission which is composed of himself, the Chief District Officer and a member nomin-

ated by the zonal commissioner. The DEO who himself has a good knowledge of the situation may also consult his supervisors informally. In fact, the selection of headmasters is essentially decided by the DEO and the CDO within the Commission.

Headmasters are required to provide pedagogical assistance to teachers, evaluate pupil performance and keep records regarding pupils, teachers and administrative matters. In many schools the headmaster is not able to fulfil these tasks, look after the accounts and answer questions coming from the administration, especially from the DEO with whom he has most contacts. It is also very difficult for most of them to complete the various statistical and administrative forms which they have to send regularly to the District Education Office. This often leads to delay in administrative work, for example, as regards the payment of salaries, implementation of directives, and also inadequate or incomplete statistical information, misunderstandings, etc. As the headmaster represents the basic source of information and the person who finally receives directives from the upper levels of the administration, these weaknesses have important effects. The authorities are preoccupied by this situation and are planning to provide training in administrative functions for headmasters. A 4 to 5 day seminar in accounts and statistics is foreseen if funds can be obtained from the Regional Directorate for this purpose. It seems that the problem of lack of administrative knowledge can be solved only in the longer term and if more financial resources are made available for training. Although a short seminar seems worthwhile, it alone cannot solve a problem of this magnitude.

Once again, the gap between financial needs and possibilities remains the main factor which hampers progress in the education sector. If more financial resources were made available a solution would not be difficult. It could consist in giving pre-training classes to future headmasters dealing not only with a thorough grounding in the methods by which they can help the teachers in improving their classroom work, but also with administrative matters and refreshing this knowledge by in-service seminars of the kind mentioned above. It is important to note that the Institute of Education has devised an in-service course in this respect for headmasters and is planning to implement it when resources are available.

Up to now, lack of funds to train headmasters is one aspect of a lack of other resources for the day-to-day management of schools. For example, there are complaints by headmasters about the fact that in many cases they have to spend much of their time, in lower secondary and secondary schools, raising funds for payment of salaries and other school expenditures. The headmaster has little time to dedicate himself to pedagogical control and support of teachers and the education given in his school. In addition, in many cases teachers seem to be mobilised also in

raising funds for the running of the school, such as mobilising the people's contribution in work or in cash for extending school buildings, for major repairs, improving paths, etc. The effect on the quality of education of these non-teaching functions is obvious. Difficulties of managing the teaching force arise not only in the weaknesses of the headmaster. There are other factors which are involved in the instability of the teaching body. These can be identified through an examination of transfer and dismissal of teachers.

2. Instability of the teaching force

During the school year, there are quite important changes in the teaching force. In 1977, 40 appointments were made in the Sankhuwa Sabha district, 14 teachers (mostly untrained) resigned and 34 were transferred from one school to another for a variety of reasons. In lower secondary schools, 4 new teachers were appointed and 16 were transferred from one school to another. These movements of teachers, particularly resignations from remote schools, cause considerable problems because of difficulties of finding replacements.

Transfers of teachers, as we have noted, take place because first of all, teachers generally wish for practical reasons to be posted to a school nearer their home so that they may stay with their families. Efforts to place them closer to their homes has the advantage of increasing the retention rate in teaching jobs.

A second cause of transfer is related to finding a substitute teacher to fill in while a teacher is sent on a training course. Finding one for the southern part of the district is not so much of a problem as it is for the northern part. The problem, particularly for the northern part, sometimes restrains the district authorities from nominating a teacher from that area for training although it is precisely these teachers who have the greatest need for training. However, such vacancies are being filled by resorting to provisional transfer of teachers, taking care that schools which lose teachers are not affected too much. An additional factor is that the prevailing rate of allowance does not seem to be sufficiently favourable to attract teachers to difficult and remote parts of the district. So it is the remotest areas which suffer mainly from teachers' resignations and transfers and geographic, economic and social conditions make it very difficult to replace either these teachers or others who are receiving training.

Another cause of transfer is misunderstandings and conflict between teachers and the local population resulting in requests for transfer by the School Co-operation Committee. The reasons for these conflicts can be of many different kinds, including

alleged ill treatment of children, persistent absenteeism and so on.

When the conflict cannot be resolved, the teacher himself, the headmaster or the parents ask the District Education Office for a transfer. This can happen at any time in the year. In the Sankhuwa Sabha district in 1977 there were five transfers caused by conflicts out of a total of 34 transfers at primary level. The team were informed by members of School Co-operation Committees that they greatly appreciated being consulted by the District Education Office about these transfers.

Similarly, another cause of transfer is the demand made by inspectors that a teacher be dismissed. When an inspector reports repeated malpractices by a teacher, he normally asks for dismissal but the DEO can only agree to this in very rare cases, mainly because of the difficulties of recruiting new teachers to replace persons dismissed. So the usual solution is to transfer the teacher from one school to another in the hope that in his new place of work, the headmaster and the School Co-operation Committee will be vigilant. The inspectors are not happy about this situation. It leads, according to their opinion, to the weakening of their authority and favours the growth of misconduct. This specific problem will be discussed below when the problems of inspection are examined.

3. Administrative staff at District Education Office level

The main problem is not the quality of the staff but rather the quantity of personnel available, particularly for accounting and audit work. The District Education Officer is assisted by an Assistant District Education Officer (ADEO) in matters related to recruitment, salaries, transfer, promotions and dismissals of teachers, and management of physical facilities, e.g. furniture, necessary equipment and buildings. The ADEO questions whether it is really necessary that there should be a staff member with this function or whether it would not be better that these duties should be undertaken by an inspector; at present the inspectorate is weak.

There are two accountants and a sub-accountant in the Khandbari District Education Office. The accountant handles all school accounts from primary to secondary. They are well trained staff (training received at the office of the Comptroller of Accounts). In addition, these accountants are supposed to perform audits in the schools when misappropriation is reported. But since there are only three persons, they need the assistance of others for the job of auditing in the schools. Lack of auditors and the fact that the accountants are overworked is the main factor which explains why the Khandbari office has not been able to audit the accounts of all schools. In view of the fact

that headmasters are not trained in book-keeping and consequently the possibility of irregularity in school accounts cannot be ruled out, it is very important to recruit staff for auditing of school accounts as a priority. The problem seemed so acute in the Sankhuwa Sabha district that supervisors were often sent to schools with the sole aim of inspecting accounts, thus being obliged to put their pedagogical inspection work to one side.

A staff member is in charge of the statistics given on special forms (e.g. number of students by age, sex, grade, number of teachers and conditions of physical facilities, etc.). There are five important forms from which data have to be compiled. Some of these forms are never filled in by the schools and we shall discuss the implications of this later.

The secondary and primary school inspectors have the duty to report to the District Education Office whether the total teaching programme in the schools is effectively performed or not. Inspectors are also supposed, with the help of other administrative staff and the staff of schools, to conduct examinations, make the necessary arrangements for marking of papers and tabulation of results. Although the inspectors are formally qualified for their work, it is not certain that they do it efficiently as we shall see below.

CHAPTER III.E. CONCLUSIONS

Considerable progress has been made in the Sankhuwa Sabha district during the four years of the educational plan and pupil/teacher ratios appear, overall, not to be excessive, with the exception of those prevailing in grade I of primary and in certain subjects in secondary. There has been an increase in the number of women teachers, but the number is still inadequate in relation to needs for the education of girls. Perhaps the most difficult problem is the persistent shortage of teachers in the remote northern areas of the country, where it is clear that the scale of allowances and of measures for recruitment and training are not yet commensurate with the size of the problem.

As regards medium term prospects for meeting the needs for teachers, linked with the government's aims for education expressed in the Fifth Plan, it would seem that the major task remains the re-training of the existing teaching force so that lack of trained teachers is eliminated. This is a national problem and in order to solve it a plan showing needs for pre-service and in-service training by the Institute of Education and phased measures to meet those needs by the 14 campuses of the Institute of Education is required. It is necessary to know the official estimates of needs on account of increased enrolment, wastage, untrained teachers and above all the remedying of the persistent shortage of qualified teachers in certain subjects, particularly science and mathematics and the measures campus by campus and in aggregate to meet those needs year by year in output terms. The authorities have introduced some very interesting innovations in in-service training of teachers, including work by teams from the Institute of Education campuses in the hill districts, particularly on the upgrading of primary school teachers. It would seem from the observations of the team that there is a strong demand in the District Education Office and among headmasters and teachers that the upgrading process in the districts, using all available local personnel in co-operation with the Institute of Education should be greatly intensified. Thus it should be possible to eliminate the present lack of adequate teaching and use of equipment through

substantial and regular vacation courses for lower secondary science teachers leading up to a recognised qualification.

In the same way, other types of intensive training might be provided at the local level. At present the development of this type of long course in the hill districts such as Sankhuwa Sabha is prevented by the costs involved and in-service training is on a very restricted "few days a year" scale. But in view of the undoubted multiplier effects of a solution of the untrained subject teacher problem, perhaps the budgetary aspects of this question might be reviewed.

At present, although the team was not able to visit the Dankhuta campus of the Institute of Education, there would seem to be difficulty judging from the statistical returns in recruiting sufficient women from the Kosi Hills region (of which the Sankhuwa Sabha district is a part) to fill the teacher training course. It would seem desirable to know to what extent the campuses have been able to fill the courses at primary and secondary level which they provide for students from the hill and mountain areas. It seems that the problems of training for men and women from the terai (plain) area are well on the way to solution, whereas special measures may require to be taken by administration to ensure that the complement of students from the uplands, and particularly women, is filled.

It would seem that it is necessary to review the problem of in-service training of heads of schools so that they are able, particularly until the teachers are trained, to provide pedagogical leadership in the schools while also looking after their administrative duties. This also is a financial problem. In addition, it would seem desirable that ways might be found whereby the authority of the head in the school might be reinforced. This is part of the complex question of teacher morale, of which training is only a part. But it goes to the heart of the question of pedagogical leadership which is not only a matter of head teachers qualified to lead but teachers motivated to accept guidance and advice from heads.

IV. Management of the supply of basic materials for education

In order to ensure normal conditions for teaching, a minimum amount of material is needed by pupils and teachers. For the pupils, basic material includes compulsory text books in all the matters taught, a set of exercise books, and other material such as pencils, pens, rubbers and so on. In addition to these basic compulsory educational materials, pupils need to have access to other pedagogical materials which enlarge their learning possibilities in the school, such as non compulsory books which relate to several educational fields, such as mathematics, languages, social studies, etc. For the teacher, the minimum individual material needed includes notebooks, pencils and above all, particularly for untrained teachers, teachers' guides with which to plan and organise lessons. For classroom use, the teacher needs pedagogical material, such as maps, posters, natural exhibits, demonstration materials for science lessons, equipment for pre-vocational classes and so on.

Lower secondary and secondary schools are supposed to teach vocational subjects. Teaching material for these can vary according to the specific programme of each school from a minimum of carpentry equipment and materials to typing machines, calculating machines, materials for gardening and tools for metal working. The availability and use of teaching materials greatly influence the quality of education provided. It is thus necessary to study how materials supply is organised in the Sankhuwa Sabha district.

CHAPTER IVA. THE PRINCIPLES AND THE FACTS

1. Supply of books at school level

Primary text books are supplied free for pupils. Three text books are distributed: Nepali reading and writing, mathematics and social sciences. The pupils are supposed to receive these three books at the beginning of each year. The number of books required is reported, according to enrolment by the headmaster, to the District Education Office and then by the DEO to the region and Ministry. Books are supplied by the Janak Education Materials Centre (Kathmandu) through a private organisation (Sadja). They are air lifted to Tumlingtar and then carried by porter to Khandbari, from where schools arrange to collect them.

While primary text books are distributed free in the district, due to its classification as a remote district, copy books and other writing materials have to be bought by parents. At the time of our visit to a first grade primary class attached to the Himalaya Lower Secondary School in Khandbari, we found that attendance in the first grade was about 66 per cent. It seems that some children had already dropped out of school, possibly for reasons explained earlier. Some of those present had come to class without adequate writing materials. More or less the same situation as regards attendance and writing materials was observed in Bal Balika Primary School, Chiple. Interviews with teachers from those areas gave the impression that some parents find it difficult to buy copy books and pencils. Provision of writing materials to pupils from poor families by HMG would improve the situation.

During the course of our visit to classrooms, we found that some pupils were experiencing learning problems. They could not read as well as they could write. This was mainly because they were able to copy letters even though they did not know how to read them. This suggests that difficulties in learning are not only determined by lack of reading and writing materials but also by the inadequacy of the teaching methods employed. It appeared that the teacher concentrated more on

abler pupils in the front of the class and this was later confirmed during the course of an interview with the teacher, who said that she could not teach some to read and write because they had no books, paper or pencils. This, therefore, poses the problem of accessibility versus equal opportunities for learning skills.

The situation as regards text books and writing materials looked better in lower secondary and secondary schools. School books, as we saw, were kept in better condition than was the case at primary level. This situation may have something to do with the fact that social selection had operated in the three grades of primary and in the transition from primary to lower secondary level. The fact that books are bought by parents rather than given free may also be relevant to improvement in their care. But some irregularities in the supply of text books and writing materials seemed to have occurred largely because of the geographical characteristics and the transport problem in the district. Text book production is the responsibility of the Janak Education Materials Centre located in Sanothimi, Kathmandu. The Janak Centre is an autonomous body charged with writing, printing and distributing all kinds of text books. The Janak Centre has given responsibility for distributing books to the Sadja co-operatives which have shops at least at district level throughout the country and which appoint local agents in places where it has no distribution centre. Pupils are requested to buy books at these local shops or agents. The fact seems to be that the local agent does not always stock the necessary compulsory books and rarely stocks other related books. It seems possible that this shortage of books is a consequence of pricing policy, which makes the sale of books less profitable than other items, and also difficulties of co-ordination as between Janak and the Sadja co-operative selling points.

2. Teachers' individual books at school level

The teachers' guides constitute an essential, and for untrained teachers the main, work tool for teaching. The guides contain detailed plans of lessons, methodological and pedagogical instructions which can be of great help to teachers. The teachers' guides seem all the more necessary as many of the teachers have not received training and they are the only instrument to help them do their work in a planned way. This does not of course mean that the teachers' guides can be considered as a substitute for training, but rather as a complement to training. Indeed short training courses of two or three days had been organised to familiarise teachers of specific subjects with the content of the guide and to encourage its use.

Throughout the district there is an acute lack of teachers' guides. It was understood that some guides were given out free

of charge on a once and for all basis in 1974 but we found very few teachers in fact possessed them. In some subjects, such as science and mathematics, there were not printed teachers' guides to be found at school level. According to the teachers, the problem was that teachers' guides were not available at the shops which were agents of the Sadja organisation so they were not able to buy them. According to some administrative authorities of the District Education Office, the main reason for the lack of teachers' guides at school level was that, as from 1977, these guides which had been free of charge had now to be paid for by the teachers.

The seriousness of the lack of teachers' guides has not escaped the attention of the district authorities. In spite of the fact that some of their members said that the main reason for the situation was lack of consciousness of teachers of the value of the guides, the DEO had sent a letter to Janak Education Materials Centre and to the directorate of the region in order to advise them that teachers' guides were not available in the district and that steps should be taken to solve this problem. At the Ministry of Education, in the division for text books, curriculum and training, it was pointed out that Janak had sent guides for each subject in bulk to all schools, and that supplies were given free to all new schools. It was stated that the main problem was that since teachers had to purchase guides with their own money, they had hesitated to use them.

The problem is also perhaps basically one of supply, which concerns the Janak Education Materials Centre and its relationships with its commercial organisation, Sadja. In Kathmandu, the Janak Education Materials Centre can show that the production of teachers' guides and other books is sufficient to supply all schools throughout the country. The problem is thus not one of limited production capacity; it lies in the mechanism of distribution. The Sadja sales centres through which distribution is made by contract with Janak, sell not only teachers' guides but also other school books, general text books, magazines, newspapers, novels and stationery, etc. If in the country as a whole Janak sells many text books, it is not necessarily the case for its selling agents, Sadja. Where Sadja does not operate its own selling point, it sells through any selling agent available whose main sales are generally not books, magazines and so on. Usually a Sadja agency in a country town or village is a grocery which also sells soap, cloth, corn and so on. In this case, they are not very interested in selling books, particularly books with such a narrow market as teachers' guides.

Janak school books and teachers' guides are sold at a fixed price. By contract, Janak allows a 20% profit to Sadja for selling its books. In turn, Sadja gives a part of its 20% profit to its local representative. This portion varies according to the situation in different parts of the country. In

Kathmandu, the profit allowed by Sadja to its representatives seems to be of the order of 4 per cent. In Khandbari the profit, which in fact includes transport costs, seems to be around 9 per cent, and according to local opinion, this amount is not sufficient to induce the shopkeeper to encourage sales of books because he has to invest in them before selling. There is no credit at all. Traders thus prefer to buy goods which they are sure to be able to sell quickly. According to Janak authorities, distribution arrangements with Sadja were made only one year ago and are at present being examined. If the arrangements are judged unsatisfactory, the contract can be changed or given to some other organisation. They admit that at present there are many complaints about the distribution of teachers' guides and other books. The Sadja authorities recognise the difficulties of distributing books in remote areas. They know well that many agents do not even come to collect the books, but they argue that this fact is not really a problem of organisation but a problem of the size of the market. The selling agents are not doing a good job of distribution because they are unintelligent but because they merely obey the law of supply and demand. They argue that the problems will be the same for any distributing organisation and that since there is no credit organisation, it will be quite difficult to find people who would agree to become selling agents.

In the view of persons consulted in the Sadja distribution group, a long term solution to the market distribution problem would be to open more branches of the Sadja organisation and progressively to eliminate the system of selling agents. Sadja plans to increase the number of its branches and sub-branches so that all the 75 districts and the main villages in each district will be supplied with school books and reading materials. Meanwhile, they have experimented with a short-term solution that looks a useful basis for expansion, namely, the opening of sub-branches on a seasonal basis so that school books can be sold during the months of January, February and March. The solution of giving the DEO the function of selling books produced by Janak is probably technically possible but it was thought by the Kathmandu authorities that giving commercial activities to administrative bodies would bring many difficulties. Nevertheless, we think that this possibility should not be dismissed out of hand. Another transitory solution might consist in including a complete set of teachers' guides in the school library (if the school had one) for the common use of the teachers. Recent government decisions to send teachers' guides to rural schools will help alleviate the problem.

3. Basic materials for collective use at school level

Educational material at school level consists mainly of maps,

posters, mathematics and scientific materials. Generally speaking, this kind of material is lacking in the classroom. In some schools science materials available in whatsoever form, could not be used because of the lack of a science teacher. When teachers are able to use it, they are reluctant to do so because any damage caused is charged to them. This explains why some scientific material is kept in perfect order and condition but is never taken out of the headmaster's cupboard. It is also noteworthy that handouts explaining the method of preparation and use of teaching/learning materials are for all practical purposes non-existent. As far as posters and maps are concerned, the main problem seems to be a financial one. Generally headmasters and the school co-operation committee do not feel that this kind of material represents a priority which should be reflected in the school's authorised budget. Although the negative effects of the lack of teaching/learning materials in the pedagogical process cannot be objectively measured, there is no doubt that it does have negative effects on the quality of education. The material and visual poverty of the pupils' environment does not favour the full development of their aptitudes.

4. Supply of vocational materials at school level

Each secondary school is supposed to have a specific vocational orientation. There are officially 34 vocational subjects but in fact only 15 are taught. Each school is supposed to receive the required material for its vocational speciality. The government pays for vocational workshops and the equipment. But there seemed to be a problem of adequate supply of vocational materials. For example, the vocational subjects at the Khandbari Secondary School in 1977 were shorthand and typewriting. But due to the difficulty of getting typewriters in adequate numbers and to repair them, the school changed its speciality to accounting which does not require much sophisticated material. Lack of vocational material in some specialisations is accompanied by the difficulty of finding teachers of vocational subjects. These two elements tend to weaken the level of vocational education. It must be added that as much of this material is imported from foreign countries, even when teachers have been assigned, there are often long delays in delivery. It is also a long process to get spare parts. The difficulties of foreign trade are added to the difficulties of administering the transactions involved.

CHAPTER IVB. THE LEVELS OF DISTRIBUTION OF BASIC TEACHING MATERIALS

The problems of managing the distribution of basic materials for schools are very different according to the type of material and the administrative level at which contact between the administration of education and commercial units which produce and sell the different materials is established. Contacts take place at four levels: at the highest level of administration in Kathmandu for primary school books; at the regional level for part of the pedagogic, scientific and vocational materials; at district and school level for another part of pedagogical material (posters, maps, etc.) and finally at the local and individual level, that is, at the market level for compulsory books and additional books used in lower secondary and secondary schools.

1. Distribution carried out by the top administrative level

In this case, the entire distribution process of primary school books takes place within the administrative channels of the Ministry of Education. As we could see during our visit, there did not seem to be any difficulties in the distribution process which worked perfectly. The problems regarding primary books developed once they had been distributed to pupils.

Problems of the loss or destruction of books, particularly at the primary level, appear to be a purely cultural problem since books are given free of charge. It is thus in the cultural field that action might be undertaken, despite the difficulties involved, in order to cope with this factor. It seems relevant to mention the fact that in Nepal the school is still to carry out the role of civic educator in the full sense of the term as is done in some other countries. Side by side with the family which plays the main role, the school has an important part in influencing the personality and behaviour of the children. This is true not only for teaching respect for books and for state property but also for inculcating a sense of punctuality, individual responsibility and other types of social behaviour

which could be the object of formal and non-formal teaching in school. This problem of whether civic education could be given in terms of behavioural education is linked with teacher training and the nature of education itself. The content of education lies outside the field of our investigations but some proposals on the organisation of this type of education will be made below, taking into account the need to maximise efficiency in the use of resources for education.

2. Problems of distribution at the regional level

The distribution of science and vocational materials for education is organised by the Regional Directorate which is empowered to spend up to 5,000 Rupees without tender. It is thus at this level that problems of distribution are settled, leaving aside the question of budget authorisation by the Ministry of Education for this kind of expenditure. As regards the Directorate's relations with the national level, problems are mainly commercial and are connected with suppliers. As concern relations with the Districts, problems are of an administrative nature.

For all amounts exceeding 5,000 Rupees, purchase of material is by tender. But this seems a formal rather than a practical procedure when one considers that at the regional level there are very few enterprises of sufficient size to enable them to make a tender. For many items, it seems that in the Eastern region of Nepal, this kind of enterprise just does not exist. The regulation is that tenders must be advertised in the national press but when a tender is not received, a further advertisement has to be made. The problem of the scarcity of local enterprise becomes more serious when one considers that for larger enterprises or foreign concerns the contracts are not usually large enough to elicit really competitive offers. Even when a tender has been signed, there is often delay in supplying the goods because some of them, for example, typewriters, have to be imported.

The small scale of local enterprises added to the strict regulations which do not permit the Regional Directorate to make advances for purchases, except according to rigorous and restricted conditions prescribed by the regulations, are also factors which make buying difficult and which are the reason for appreciable delays. When we visited the Regional Directorate at Dharan, we heard the opinion that there should be a central agency at Kathmandu responsible for the purchase, collection and despatch of materials and that the Regional Directorate's function should be confined to checking whether material had been properly used or not. If this could solve the problems of the Regional Directorate itself, it is not certain that it would solve the problems of distribution as a whole. There would certainly be a gain in terms of price through tender at national level but

against this must be set the possibility of losses due to administrative delays associated with the aggregation of national demand. It is also more difficult at the national level to take into account all the specific requirements of regional needs. In our view the advantages and inconveniences of organising the centralisation on a national basis of purchases of science and vocational material should be well studied before any change is made. In any case, the existing arrangements for purchasing by tender are not working very well.

As regards relationships between the regional and district offices, the administrative problems of distribution are basically those of the difficulty of communication. At lower secondary and secondary school levels, the problem of use of the material is essentially linked with the ability of teachers to use the materials distributed. As mentioned above, few teachers are able to use science materials while more of them can use vocational materials. The problem is thus mainly a problem of training.

3. Buying materials at school level

Educational materials, which should consist of maps, posters, etc., are not distributed. Each primary school receives a grant of 300 Rupees (\$ 24) to buy them on the market. The problem is thus not an administrative problem of distribution in the strict sense of the term but is rather mainly one of accounting procedures in order to make sure that there are no irregularities; the role of the District Education Office and the school co-operation committee in ensuring that money is well spent has been mentioned above. From our visits to the schools, it would seem that the actual use of these materials on the walls of the schools is limited because of the shortage of funds to replace the initial supply.

4. Direct and individual buying of school materials on the market

This is a problem of what teachers and parents will buy. The question of the teachers' guides is referred to above. It seemed to members of the team, and to some individuals in the local administration; that part of the problem lies in the fact that until they have received training the untrained teachers may not be fully committed, in motivation terms, to teaching and may still prefer to seek work in administration. This being the case they may not wish to buy the guide unless they are obliged to do so. It is also the case that trained teachers are more able, financially, to buy books to add to their knowledge and

help them in their work. The team noted that primary and lower secondary schools generally did not possess teachers' (or pupils') libraries and perhaps this should be a priority for future action.

V. Management of inspection

The National Education System Plan for 1971 - 76 sees the District Education Office as the chief instrument of implementation and supervision. The administrative functions, as we have seen, include the organisation of the education service in the district, appointment, promotion, transfer or dismissal of teachers, together with responsibility for ensuring the provision of physical facilities and supplies. The supervisory functions include periodical inspections to find out whether the teachers are successfully conducting the curriculum and other activities in line with the set objectives, to make evaluations and suggestions for the implementation of which the district education officer will have an administrative unit and a team of inspectors to check schools of all levels.

The NESP states that the education officer will acquaint the teachers with departmental policies and guide-lines. Teachers in turn will explain them to the students. The education officer will also transmit to the Ministry the ideas, suggestions and problems of teachers and students. The education officer will try to ensure a smooth implementation of the education programme by means of personal inspection, formation and discussion.

This part of the report will therefore be directed towards the study of the questions raised by this NESP statement of the aims of administration and supervision at the district level. Several questions are involved. First, if the supervisors are so to speak the eyes, the ears and the mouth of the district officer, are they able to visit the schools regularly and conduct both administrative and pedagogical business? Second, do they have time and are they properly trained and qualified to evaluate the teaching and learning process in the classroom and to help teachers and heads, by personal example, to do their work better? Third, as regards the systematic follow up of the messages from the supervisors and the provision of information for regional authorities on the conduct of school education, is the district office able efficiently to undertake these tasks in terms of

mobilising resources to remedy defects?

In this part we will examine what role is played by the supervisors. We will study their work at district level and make some suggestions on how it might be made more effective.

1. The place of supervision in the schools

The essential aim of the visits of the inspectors to the schools is that they should contribute to the efficient running of the school. This is seen in terms of improving the teaching and learning process in the classroom and the physical and administrative conditions of the schools.

The first prerequisite is therefore that the inspector should be able to sit in the classrooms, evaluate whether the work is being done "properly", in accordance with the Ministry's aims, as a result of a careful examination of the teachers's work and the pupils' knowledge. The inspector's evaluation implies that he knows how the curriculum should be taught, how the books and materials available should be used in the planning of lessons. If inspection is to be useful, there are a number of preconditions with regard to follow-up which need to be looked at, such as the possibility of demonstration lessons, in-service training of teachers, the contribution of headmasters, competition between schools and the establishment of model schools. In other words, the usefulness of inspection may be judged to some extent by the measures taken by the District Office to ensure effective follow up.

The second main responsibility of inspectors is to help improve the administrative and physical conditions of the schools. Partly this is a matter of ensuring that discipline in terms of attendance, hours of work and relations with pupils and parents is respected. But also there are financial and material matters, such as the budget and the state of the school. Inspectors are asked to report on the state of maintenance of school buildings, furniture, gardens and other facilities. They are required to help the headmasters and teachers organise meetings and take steps to mobilise the local population for school support. Clearly there may be a contradiction in terms of the use of available time between the first and the second main priorities for inspection.

2. The professional and human qualities expected of inspectors

In order to fulfil these heavy responsibilities, many qualities are expected of an inspector. These are enunciated in official documents prepared at the national level. Professionally, it is said that he should be an experienced teacher since he has to inspire the teachers to make efforts to improve the quality of their work. He should have a thorough understanding of the curriculum and the books used in it. At least at the primary level he should know more about the teaching of any subject than the classroom teacher. He should also be someone who commands respect from the teacher and in this sense should be a competent evaluator rather than a "check list" policeman. Instead of simply pointing out weaknesses in a teacher's work, he should be able to help him overcome those deficiencies by organising demonstration lessons.

As regards human relations, it is expected that an inspector should be able to help not only teachers but also the community to realise their collective responsibility for the success of the school's programmes. A good supervisor should be able to win the teacher's confidence since an aim of supervision is to generate self confidence among teachers through the promotion of their potentialities. A supervisor must be impartial and appreciative of the good qualities in teachers since his functions require him to encourage their development. The most important duty is perhaps to help the untrained and new teacher. Inspectors should also try to encourage teachers to exchange opinions regarding solutions to school problems. In order to do all these things, the inspector must not only be very well trained but also well selected.

3. Organisation of the inspectorate

In the Ministry of Education in Kathmandu, there is a supervision division with a strength of six persons, when it is in fact supposed to have sixteen. The division has the responsibility of appointing all inspectors and guiding their work through the regional offices. According to the NESP, there should be one inspector to every 20 primary schools, one to every 10 lower secondary and one to every 7 secondary schools, which, however, have been modified by the mid-term evaluation report. According to the Under Secretary of Education, in charge of the Supervision Division, the actual official ratios are one inspector for 40 primary schools in the Terai (Gangitic plain) and valley, but one for 30 primary schools in the hills; one inspector for 20 lower secondary and secondary schools in the Terai and valley and one for 15 such schools in the hills.

In theory the inspector must be trained in the Institute of

Education before being appointed. Primary supervisors are former teachers, with at least an Intermediate Education qualification and three year's teaching experience. Secondary supervisors are also former teachers who have passed the B.(Ed.) or equivalent degree. They are appointed without any specific training for inspection duties. They should receive a three week training course organised by the Ministry of Education in the regions, but in practice they receive less than this.

The inspectors' work is organised by the District Education Officer at the beginning of the year when their tours of inspection within their part of the district are planned. The work of inspection consists of visiting each school on a regular basis and normally three times a year in order to help teachers in their work, check the material needs of the schools and report on them. According to the supervision guide, five forms must be filled in by the inspector during the course of the year. These forms and additional reports are supposed to provide the necessary information about the schools for the District Education Office, the Regional Directorate and the Ministry of Education.

- Form 1 is a very complete survey of every aspect of the school. It must be filled in at the beginning of the school year (December or January). One copy is kept by the supervisor and one copy by the District Education Officer.
- Form 2 is the teacher's personal record. It must be completed when the teacher enters the profession and indicates his qualifications, the classes taught, experience, salary and other personal details. This record is kept in a file, by school, in the administrative section of the DEO's office.
- Form 3 is the supervisor's annual programme of visits of the schools as approved by the DEO. It details his monthly programme of visits and the purpose.
- Form 4 has three parts: a) a general report on the work of the school with notes as to whether previous recommendations made by the inspector have been carried out; b) class supervision reports, including an assessment of each teacher's performance on every visit (three copies are made: one for the teacher, one for the inspector's files and one for the District Education Office); c) inspector's classroom observations (one copy to the school, one to the DEO and one is kept in the inspector's file).
- Form 5 is a statement of the overall activities and situation of the school made at the end of the year. It is a very important document in that it gives a general overview of the school's situation. One copy is kept by the inspector, 3 copies are sent to the Regional Education Directorate with comments and one stays at the DEO. It

is this document which is sent by the Regional Education Office to the Inspection Sub-Division at the Ministry of Education in Kathmandu. It is in principle the main source of concrete information at the top level on the situation of the different schools in the country. However, we were not able to ascertain either that these documents had been received in the Ministry or that they had been analysed in Kathmandu or at regional level in order to inform top officials at the Ministry about the general situation of schools in the district.

Since the district of Sankhuwa Sabha is at a rather initial stage in its educational development, it is not yet possible to speak of a system of inspection by well qualified personnel, and in practice the contribution of the inspectorate to the improvement of all levels of education seems both uneven and insufficient. As will be seen in the next section, the weaknesses of the inspection system are various but mutually reinforcing. The quantitative aspect of inspection is inadequate given the geographical conditions prevailing in the district. The quality of inspectors is still too low to permit them satisfactorily to fulfil their duties. The organisation of the inspectorate could be improved in a number of ways mentioned below.

1. Conditions of Inspectorate work

In the Sankhuwa Sabha district, there are four primary inspectors and one inspector who is responsible for both lower secondary and secondary schools. As the number of primary schools in the district is 122, it means that the ratio is one inspector for 30 schools. There is no specific inspector for lower secondary and the official ratio includes both lower secondary and secondary schools. In the district there are 25 lower secondary and 4 secondary schools which means that one (temporary) inspector is responsible for 29 schools: the official ratio being one inspector for 15 lower secondary and secondary schools. It is thus evident at first glance that the task of the inspector seems to be excessive. It should also be mentioned that neither the secondary inspector nor the four primary inspectors regularly inspect the primary classes which are attached to the lower secondary schools. This situation is aggravated by the geographical dispersion of the schools and the difficulties of communication.

The Sankhuwa Sabha district is an area with tough climbing and hundreds of streams and small rivers, many of them without even suspension bridges. The fact that the inspectors were able to pass over the rudimentary bridges at high speed is evidence of the innate capacities of the Kosi hills people. As mentioned above, in the north of the district, it may take as much as two or three days to go from one school to another. Some suspension bridges are made entirely of bamboo and are dangerous. Inspectors find it hard to visit each school once in three months. In the summer season supervision comes to a standstill because schools close for two months and the streams, swollen by the monsoon, are very difficult to cross. Thirty primary schools in the northern part of the district close in the monsoon period and pupils cannot reach them because of the danger of landslides and floods. Inspection is only possible in the dry season in this region. To reach 16 schools in the

Tamku, Yaplu, Mangtewa, Bala and Yamdang panchayats in the north, one has to cross the Arun river by pulling oneself over on a shaky metal cable in a bamboo basket, while the river thunders by in the gorge below. In the months of December, January and February, inspection is not possible in the panchayats of Kimathankha, Chepuwa and Syasshilla in the Alpine region because of heavy snowfall. Kimathankha is 90 miles from Khandbari or 6 days' walking. It is thus clear that due to difficulties of communication, inspection cannot be anything other than sporadic and dangerous. In any case, the ratio of one inspector to 30 schools appears to be inadequate.

Assuming that the total number of working school days is 220, an inspector responsible for 30 schools will have an average of some 7 days per school in the year, including walking time. In fact, if we take into account walking days from headquarters to schools and from one school to another, the time that remains for inspecting is very short. It is easy to imagine the general effect of the fact that the ratio is too high. A proportion of the schools, especially the remote ones, is seldom visited. While we received evidence that inspectors had made considerable efforts to visit each school three times a year, the number of visits tended to be a function of the distance of the school from Khandbari, and in general, while some schools may be visited, there may be only a few which are professionally evaluated and guided. The situation is especially difficult for schools with newly appointed headmasters or teachers who do not receive sufficient pedagogical and managerial guidance from inspections. This is reinforced by the natural fact that, generally, the newest teachers are posted to the most remote and difficult areas. Another effect of the quantitative weakness of the inspectorate is the fact that inspectors tend to have a very diversified set of duties to carry out in the school. Mainly because of the scarcity of inspectors and difficulties of communication between the administration and the schools, inspectors in carrying out the duties connected with the five forms mentioned above, are used both for pedagogical as well as for many other duties, such as auditing work, inspection of facilities, fund raising, administrative work concerning teachers and pupils, etc. Due to this diversity and the fact that inspectors are not trained for pedagogical evaluation and guidance, their effectiveness is sometimes low and they are involved in administrative duties for about four-fifths of their time.

An important point relating to the quantitative problem of supervision is the serious lack of subject inspectors for lower secondary, secondary and vocational education, which are included in the regulations governing the supervision system. In addition there are no inspectors of adult education. It was argued that subject supervision is not necessary in primary schools, but was essential at all post primary levels. In fact the temporary

inspector of lower secondary and secondary schools was only able to provide evaluation and guidance in respect of one subject, namely, mathematics. It was also argued that inspectors can at best visit schools two or three times a year and that the supervisor of education in the schools must be the headmaster. But it appeared that due to the lack of subject supervisors, the possible benefits of inspection of subject teaching have not been obtained. The one subject supervisor had found it hard to visit all the schools because of the difficult terrain. He could not on his tours of visits regularly and effectively evaluate the teaching standards in all subjects. He could only discuss and help the teacher of mathematics in the use of educational material to improve the teaching level. In particular, he could not help the teachers of science and modern languages. It appears that some inspectors will be posted to the Regional Directorate with the responsibility of making subject inspections in the secondary and lower secondary schools. It is important to note also that the lack of subject teachers is due to financial problems as well as to a shortage of subject specialists.

It may be noted that the NESP lays much stress on vocational education. In order to encourage "appropriate attitudes" towards manual labour among children, pre-vocational courses are introduced as from grade 6 of lower secondary school. But again, owing to the absence of vocational inspectors, supervision of vocational teaching is conducted by secondary inspectors and cannot be as effective as desired. The lack of vocational education inspectors is particularly disturbing as it should be seen in relation to socio-cultural factors which make it difficult to create public interest in vocational activities, especially manual work, and attract pupils to learn about such activities.

2. The qualitative situation of the inspectorate

As regards the 4 primary inspectors in the Sankhuwa Sabha district, 3 of them possess the Institute of Education Diploma (colleges of the Institute) and a fourth a B.A. degree and some teaching experience. This I.E. diploma which requires two years study after SLC, involves classes in teaching methods, child psychology, human development, multigrade teaching, primary education, physical education, art and dancing. They have all had periods of one to four years of teaching experience before being selected and promoted as inspectors. One inspector has been a teacher for three years, headmaster for two years and had been an inspector for three years. All the primary inspectors are required to serve for at least three years in each post before being transferred to another district by the regional authorities. It is important to note that they had not received special courses in supervision or on methods for evaluation and

support of teachers' work. They had also not received training in administration, accounting or other tasks they have to carry out as inspectors.

The secondary inspector who is "acting" inspector, that is to say he has not been confirmed in his functions, has a Bachelor's degree in Education with a major in mathematics and a minor option in science. He has had some teaching experience.

According to replies given in several interviews with teachers and higher district officials, the main qualitative deficiency of inspectors is that they are generally unable to teach the teacher how to work properly due to the fact that they did not themselves receive the requisite training for inspection not to speak of lack of training for other tasks. For example, some inspectors were apparently unable to give demonstration lessons to teachers. Some are unable to explain how to use educational material and give advice about the way to organise lessons. In the opinion of teachers interviewed, their practical utility to them was far from uniform: "some are good, some are not". The consequences of these deficiencies are very important. One is the fact that the pedagogical work of the inspectors is not necessarily regarded in practice as the most important part of their duties. The inspectors tend naturally to give more importance to the work they can perform better. According to a primary inspector interviewed about his last tour, 20% of his time had been spent in discussions with teachers about teaching, 50% had been devoted to financial matters and most of the rest on administrative matters. Almost no time had been dedicated to classroom observation and checking pupils' performances. Of course this distribution is due, in part, to the fact that mainly administrative and financial work is expected from inspectors. But lack of basic training in pedagogy and inspection is shown in inspectors' reports to the DEO and the Regional Director. One finds virtually no serious assessment of teachers' performance and competence in the reports. In fact, inspectors' professional activities in the strict sense of the word seem to be minimal.

The lack of training added to the fact that many inspectors do not really understand their role in the educational system leads to psychological errors towards teachers in their behaviour. The difficulties of the younger teachers have been mentioned. For the older teachers who have many years of experience, relationships with young inspectors without much experience are not always exempt from difficulty. There is a clear tendency among them to consider that they have very little to learn from inspectors and sometimes they are right. The temptation is very strong, when their technical skill is too low, for inspectors to play an authoritarian role and give orders to teachers rather than help them in their day-to-day teaching work. The result is that inspectors appear to many teachers as agents of the District Education Office who must be obeyed. The imperative and sweeping

C
nature of the advice given to teachers, as can be seen in some inspection reports, is illustrative of the lack of training and tendency of the inspector to play the role of "checking agent or policeman" from headquarters. As an example, one inspector recommended to a teacher to: keep classroom clean, use educational material effectively, organise "drilling" of pupils, make a lesson plan, and so on, but the teachers with whom we spoke said that the inspector gave no advice on how to teach. In other cases, some general instructions, the realisation of which are not entirely in the hands of teachers, are presented as advice to the school, for example, to have a garden for vegetables, to have cupboards in the school, to use teachers' guides, and so on.

3. Motivation and social status of inspectors

Many inspectors are conscious of their weaknesses. When interviewed, they cite the geographical difficulties involved in their work and insist on the fact that incentives for their work could be higher and that they have not received adequate training to carry out their duties, including in-service training. For example, they do not as yet receive useful guides and information from the Ministry to improve their knowledge. They argue that they do not always receive good guidance from the District Education Office in their work, especially training in extra-curricular activities. Finally, they say that their inspection work is not administratively taken into consideration and followed up as it should be. We will examine below the substance of these complaints.

But in addition, inspectors have said that material incentives are inadequate and that little credit is given for good work. Their career development is subject to rules which are not considered appropriate with regard to the importance of their role. The basic salary of a primary inspector is 400 Rupees per month plus 33% field allowance which compares with the basic salary of a lower secondary I.Ed. teacher, who does not receive an allowance. Salaries are increased by 12 Rupees a year (3%). Similarly, a secondary inspector receives a qualified secondary teacher's basic salary of 650 Rupees plus a 33% field allowance. His annual salary increment is 15 Rupees a year. Annual reports on the work of inspectors are made by the DEO to the Regional Directorate, with copies to the Ministry. The DEO can recommend that a cash award be paid to a very merit worthy inspector. This proposal is referred to the Ministry in Kathmandu for decision. These awards are seen by inspectors as infrequent and too small. In their view, their career seems to be slow. For example, to be promoted, a primary inspector must obtain a degree in Education or have had at least ten years of experience as an inspector. This is seen to be rather long and there is

no provision for inspectors to undertake paid study.

It may be mentioned also that inspectors are classified as technical personnel whereas DEO, ADEO and other staff at regional and national levels in education are classified as administrative personnel. Since administrative personnel can be promoted after only five years, inspectors try to obtain a transfer to administration through entry in competitive examinations. Just as many teachers tend to consider that their present job is a springboard from which to enter administration as civil servants, so also some, and in our experience the best, inspectors consider, rightly, that their material position would be better if they entered administration. The lack of a strong vocational sense added to the material difficulties of their work, and in the inspectors' view, its lack of prestige, has some bearing on the fact that in some cases inspection work is carried out with a certain degree of laxity. This attitude would seem to be reinforced by some weaknesses in the organisation of inspection itself.

1. Dispersion of the task of inspectors

One of the aspects of the work of the inspectorate at district level, as has been mentioned above, is the multiplicity of its tasks and the consequent reduction of efficiency in the performance of each one of them which results. When an inspector visits a school, he may be engaged in inspecting and reporting on pedagogical work, auditing, physical facilities, administrative work of the school and social mobilisation work in respect of enrolment and support of the school. Lack of efficiency in the work of evaluation led the 16 District Education Officers of the Eastern District to formulate their views on inspection at a seminar held at Dharan in 1977. They recommend that more attention be given by inspectors to evaluation and defined criteria for this work in nine respects. Five of their criteria concern pedagogical and educational problems, namely, periods of field work undertaken each year by the inspector, the results of the final examinations in schools under their responsibility, production and use of educational materials preferably with the use of local materials, defined improvements made in the educational environment by their efforts and short term training courses provided for teachers. Four other criteria of a very different nature were mentioned: the quantitative improvement of school buildings and furniture through the mobilisation of popular participation in the zone under the responsibility of the inspectors, the quantity and volume of land donated to schools by the population, the volume of maintenance work in the schools, subscriptions, donations, gifts and grants obtained by schools in their zones. It is clear that the district officers see the role of inspectors as firmly linked with both pedagogical and administrative objectives.

The dispersion of the tasks of the inspectorate in the Sankhuwa Sabha district is aggravated by the fact that the inspectors are often required to do administrative work at the district education office in Khandbari. This is because there

are not enough administrative personnel to cope with the work at this level. It should be added that few inspectors try to avoid this kind of administrative work, since material conditions at headquarters are better than those in the remote schools and villages. It should be said that one of the effects of these duties is to reduce the frequency of visits of inspectors to schools.

The reasons why the inspectors are used in so many different ways, many of which are purely administrative, seem to be justified mainly by the geographical and administrative situation in the Sankhuwa Sabha district, where there is a lack of qualified personnel and it is necessary to use each visit to the schools to solve as many problems as possible. Nevertheless, the fact remains that inspectors do not spend much time on evaluation and guidance in the classroom. Many of their visits to schools are only for accounting or administrative purposes. Although it is not desirable that inspectors should have nothing to do with these activities, their main fields are, in principle, pedagogy and education.

2. Relations between the District Education Office and Inspectorate

The District Education Officer, as the person responsible for education in the district, is the supervisor of the inspectors. He must guide inspection work, judge the result and take steps which reports have shown to be necessary. In fact, it seems that contacts between the DEO and the inspectors might be closer. If the DEO is to give instructions and guidance to inspectors before they go to the field, a process of analysis of previous reports is required and this is not always the case. Sometimes guidance is not available and inspectors state that they may be left to work according to their best ability and without firm instructions, particularly in the pedagogical field. Probably this situation, when it does occur, is due to the specific background and work experience of the DEO and ADEO that may allow them to provide leadership and training to inspectors or to follow and judge their work closely. The lack of strong guidance may be seen from the very general character of the annual and monthly work plan of the inspectors. It provides an additional reason for a certain lack of effectiveness of the work of the inspectorate.

For effective inspection, it is necessary to define the scope of the powers of the inspectors. According to inspectors, it is necessary for the smooth running of the schools, that suggestions made by them should be carried out by the teachers and enforced by the District Education Office. For example, if some teachers arrive at school at 11 a.m. instead of 10 a.m. and

do not heed the inspectors' advice that they should change their ways, it is necessary that the DEO on being informed, should initiate action against such teachers. And these actions should not be only of a token nature. For example, it may happen that the measure consists of a simple transfer of a teacher who is moved from one school to another where he will again meet the same inspector. The inspectors consider that, while admitting there is a serious general shortage of teachers, it is the duty of the DEO to reinforce their authority and prestige among the teachers for the good of education in the district.

In the same line of thought, they consider that they could with advantage be consulted on such matters as transfers, appointments, training, promotions, dismissals or meeting deputations of teachers. They argue that no-one knows the teachers better than they do as regards work contributions, honesty and efficiency. It is important to mention that decisions taken in such fields are very delicate and can have important consequences. For example, if inspectors were to have power in deciding who should be sent for training, they would decide about their standard of living since trained teachers are of course better paid than untrained ones. In view of the the inspectors, the District Education Officer should have faith in his staff. If he has no faith, the staff become lethargic. The DEO should delegate more power to the inspectors and local problems should be dealt with by them since it is the inspectors who understand these problems best. According to their opinion, the only way to keep teachers disciplined is through a strong system of inspection. In fact, the problem as argued by the inspectors is the eternal one of the extent to which administrative power should be decentralised. Although all these arguments appear to be serious, others equally valid could be advanced for strictly limiting the powers of the inspectors.

According to the DEO, the main problem of the inspectorate is the lack of competence and training. In most cases supervisors do not seem capable of good work. Most inspectors' reports are not objective and they show a clear tendency to play the role of "big chiefs" among teachers. The DEO thinks that unless more training in science, mathematics, vocational subjects and administration is provided, it will be difficult to speak about a qualified staff of inspectors. He said that most of his efforts are devoted to organising the training of inspectors in order to improve their professional skills. In fact, it could in principle be possible to give more power to some inspectors but due to the fact that certain others are useless, it would not be possible to give the same powers to these other inspectors. As the rules tend to be uniform, it seems to him clear that they cannot be adapted to good and less good inspectors. As far as applying the recommendations of inspectors for punishment, transfer and so on, the problem is more difficult than they

think. For example, it is difficult to dismiss or punish teachers because there are not enough of them and most do not want to spend all their lives as teachers. The educational system depends at least as much on the goodwill and behaviour of teachers as on the fact that it provides a living to teachers. This kind of problem appears to be beyond the power of the DEO himself. The basic problem is the general low level of the educational system and this can only be solved progressively with time and much effort. In the view of the DEO, this is not an administrative problem with a clear administrative solution.

3. The follow-up of results of inspection

Besides strictly pedagogical questions of the teacher's work, an important part of inspectors' reports deals with the material conditions and administration of the school. These reports are supposed to serve as one of the basic elements in the evaluation of educational policy at district, regional and national levels. In fact, the inspectors' work seems to have little effect because of the material conditions under which work is carried out at the district office, mainly in regard to the filing system and circulation of reports from one level to another.

The first fact is that the forms which are completed by inspectors during their visits are very scarce and this causes some disorganisation. Sometimes they do not prepare forms and give information in a standardised way which is a cause of error that cannot subsequently be remedied. The scarcity of these forms, especially the more expensive ones such as form 5, leads to incompatibilities in reporting. Some inspectors insist on completing the official forms during their visits and their reports consist of the forms. Others have become used to doing without the forms and write reports according to those aspects of the schools' problems which they think are important while omitting part of the data required in the forms. These habits contribute to the difficulties in the District Education Office in summarising reports. Material conditions in the office are less than satisfactory. Inadequacy of typewriters and copying machines makes it very difficult to reproduce reports and send copies of them in good time to the Regional Directorate and the Ministry of Education in Kathmandu. Lack of cupboards at the District Education Office and elsewhere add to the problems of filing reports and transmitting them from one level to another. Moreover the team was not able to obtain evidence for example, that copies of form 5 from Khandbari which were supposed to have been completed and sent to Kathmandu, had either been received or were available. Consequently no action had been taken in the Ministry on reports on schools and no analysis had been made for the higher officers. It appeared that the Supervision

Division in the Ministry of Education was only occupied with administrative matters concerning recruitment, appointment, transfer, retirement, disciplinary questions on inspectors, etc. The reasons for this deficiency appear to be material but also there appear to be no instructions for the use of the inspectorate in a monitoring fashion. The lack of adequate reporting is, to a considerable extent, due to the insufficient material conditions at the district level. But difficulties of using inspectors' reports have another cause which appears more serious and this is the conception of classification of information at district level.

All reports written by inspectors are given to the DEO and he is supposed to read them all, which is doubtful. Some of the reports are supposed to be sent to the regional office and others also to the Inspection Division in Kathmandu. The organisation of inspection from planning of the work to completion of reports does not allow rational use to be made of these reports or a useful summary to be made. This weakness of organisation is not a simple technical error, it is the result of the conception of the work as being to keep a check on the inspector rather than on the school situation.

The work plan of the inspector is not drawn up according to a school improvement objective, which would imply that a record is kept of the progress made in each school in order to achieve systematic improvement. Plans are drawn up inspector by inspector to ensure that they work and to check that they visit schools. Thus inspectors' reports are piled up by inspector by tour and not by school. This means that it is very difficult to find out what has happened over time in a given school, what the inspector has done about the school and what action has been taken by the district office. To make such investigations or summaries for a given school, it is necessary to look through tour reports. This way of filing allows the DEO to follow the monthly work of each inspector but not the life of each school separately and explains why it is possible to make reports of an administrative kind about the work of the inspector but it is not possible to make reports about the results of their work in summaries. This also explains, together with other factors already mentioned, why the DEO rarely writes summary reports about the situation of education in his district. To do so would require so much unravelling of tour reports that it would not be possible without losing a lot of time.

This situation has a corresponding effect at regional and national levels. In the Ministry, the division of supervision is supposed to appoint inspectors and supervise their work through the Regional Office. But in fact, its activity is confined to receiving their reports, and those of the DEO and ADEO, whose work can be followed inspector by inspector and DEO by DEO. But due to the conception of control, there is no way for those

in Kathmandu to obtain a clear idea and solid information about what is happening in the schools themselves, although information undoubtedly exists about this. Regional directors when they visit the Secretary of the Ministry are able to prepare reports on the situation of education, but the monitoring and reporting provided by regional directors is only a fraction of the wealth of information and evaluation which is obtained by inspectors in the course of their visits, but which is not fully analysed and used. In fact, one could say without much exaggeration that there is more a policy of inspectors than a policy of inspection. This is the reason why it is so difficult to use the potential of the inspectorate as an instrument of communication between the Ministry and the schools.

CHAPTER VD. CONCLUSIONS AND PROPOSALS

1. Supervision: general principles

It seems that one of the main problems involved in inspection is how to increase the competence of inspectors, bearing in mind that they cannot be competent in everything. In our view, the two main responsibilities for the inspector are first, evaluation and improvement of the work of the teacher and the school through advice, demonstration classes, competitions, in-service courses, as well as the remedying of material and administrative defects which affect the work of the school. The second is to provide information for the authorities so as to monitor the state of progress of the schools in connection with the government's plans. These responsibilities imply the need for training the inspector so as to enhance his ability to appreciate the situation of the school, make suggestions for its improvement and follow them up. In our opinion, the other tasks which are today undertaken by inspectors such as auditing and the raising of funds are a function of the shortage of staff at the local level. Clearly this work must be done. But progressively these tasks should be undertaken by other persons suggested below.

Another important problem is the fact that there are not enough inspectors at district level to carry out the two main tasks as defined above.

A further question is the organisation of inspection so that its results can be used to improve the quality and quantity of education.

2. Training of inspectors

There is no doubt that the task of improving the quality of inspection will take some time, but this seems quite normal if it is borne in mind that efforts to improve education only really began in this decade. It is clear also that inspection is only one element in the chain of actions which need to be organised

to improve education: training of headmasters, teacher training and re-training, books and materials, visual aids and so on. Nevertheless, the future of education depends to an important extent on efforts to improve the quality of inspection. This necessity has not escaped the attention of senior administrators in Kathmandu and an important formulation of their views was contained in the mid-term evaluation of the NESP made in 1975. In this document some recommendations about the organisation of the inspectorate and training of inspectors were made. It was, in particular, recommended that the Supervision Division of the Ministry should be relieved of its present function of administering inspection personnel and should be made responsible only for the formulation of a national programme of inspection and related policy decisions, as well as professional guidance and evaluation of the work of inspection in the four regions. A specialist with great experience should be appointed as chief of this division. Under him it is suggested there should be specialists in primary, lower secondary and secondary inspection. One of the main duties of these specialists should be the organisation of training and seminars for inspectors in co-operation with the Institute of Education and preparation of standardised guidance in the form of inspectors' handbooks, manuals, etc. The division would also be responsible for drawing up and supervising the implementation of guidelines for the evaluation of inspectors' performance in co-operation with the regional and district officers.

The problem of the existing grave shortage of subject supervisors was also examined. It was recommended that Regional Directorates should play a role in strengthening subject supervision. Each Regional Directorate will be responsible, if the reports' recommendations are implemented, for a team of vocational education inspectors and four general inspectors of mathematics, Nepali, English and science respectively. These supervisors would be responsible for organising workshops, seminars and training in their respective fields for district inspectors and teachers. It is recommended that each district will as at present maintain a team of general inspectors which at lower secondary and secondary level will include at least one inspector with B(Ed) subject specialisations.

The mid-term evaluation report endorsed the recommendation that the inspector/school ratio should be established at 1:40 for primary schools in the Terai and 1:30 in the hills. We have already seen that this ratio is probably not low enough to meet the needs of the Sankhuwa Sabha district. The report insists strongly on the role of the district in training teachers. District inspectors will be required to organise workshops and seminars on subject teaching and check whether these workshops have been followed by teachers in their classwork. In fact, the report conceives the role of inspectors as one of teaching the

teachers but the task has hitherto been subject to sharp financial constraints and lack of financial facilities would seem to be a serious obstacle to implementation of the recommendation to organise seminars and workshops for teachers. In 1977 in the Sankhuwa Sabha district only one three day seminar for teachers was organised and this was very little in relation to needs. No special instruction was given to inspectors. It seems also necessary to insist on the fact that unless more money is spent on the training of inspectors it will be difficult to improve the actual training situation, even if money is spent for in-service training courses for teachers. The problem of the general level of government participation in the improvement of education in those areas where the multiplier effect of expenditures would be greatest, is particularly relevant to the organisation of training for inspectors. A national plan for the training and re-training of inspectors is required.

3. Specialisation of work and division of labour in school supervision

If the general scheme of the structural organisation of inspection which has been described above, seems to be the best that could be imagined today, it is nonetheless surprising that no effort has been made to augment the inspecting force by using all people in the district who could undertake the necessary work.

First of all it seems to us that progressively, the inspection and supervision of buildings and furniture, supplies, water facilities, etc., should be undertaken by specialised personnel. We suggest that problems connected with physical facilities should become the responsibility of a special staff of technical inspectors responsible to the technical office of the Ministry of Education. Their duty should be to encourage the standardisation of building construction and the supply of furniture, etc., as mentioned in Part II and to inspect these aspects of the school. It is suggested that architects and technicians should be appointed for this work. In this case, their reports would provide much more useful information and guidance on school building problems and physical facilities than can be found in the inevitably general remarks contained in inspectors' reports today. These inspectors could be the agents of an improved building policy.

It is also suggested that most of the administrative and accounting work of the inspector might be transferred to other persons. Auditing and administrative work connected with the school's relationships with the population might be transferred to the panchayat. Today, each panchayat employs a permanent administrative official whose work is the administration of the panchayat. It seems possible and desirable to give these

persons the responsibility for auditing which today is that of the inspector. They seem to be more qualified for this work than inspectors whose skills are, in principle, supposed to be related to pedagogy. Such a transfer of responsibilities would lighten also the administrative load at the district educational office, the work of which would be limited to examination of the finalised accounts and investigation of doubtful cases. But it may also be necessary to consider the establishment of a pool of auditors at regional level who would inspect the accounts at district and school level.

In order to increase the amount of time given to inspection without spending extra money, headmasters and senior teachers could contribute to this process. If it is the case that there should be one lower secondary school for every four primary schools, the headmaster of the lower secondary school might have the authority to exercise some measure of inspection and control over the four primary schools. Likewise, if there is one secondary school for six lower secondary schools, the headmaster and senior teachers of the secondary school could evaluate and advise on the work in the lower secondary schools. The responsible headmaster and teachers would inspect the "feeder schools" with the aims of improving the level of pupils who will later enter his own school. They might give special attention to their educational standards in the particular field where on the occasion of previous visits they have seen that pupils were weak. At present, as there is an insufficient number of inspectors, it is rather difficult for them to supervise the progress of the school effectively. If the above proposed arrangement could be set up, a headmaster would have only four or six schools to visit and therefore he could pay more attention to what happens in each of them.

It is important to insist on the fact that the power given to the headmaster would not be administrative. He would not have anything to do with dismissal, transfer, payment, etc., of teachers. His only field of activity would be evaluation of students' performance and to help teachers of feeder schools to improve it. Thus a school would have supervision both from the inspector and the headmaster. The headmaster should, of course, submit reports about the pedagogical situation of schools under their responsibility to the inspector and the DEO. They will discuss together what kind of measures could be taken to improve the standard of the pupils. It seems possible that under such a system with one to two visits per month, the four schools under the "inspection" of the headmaster could receive from three to six visits per year, the frequency dependent on the importance of the pedagogical problems at a given school. This system could be extended beyond the headmaster and if necessary, the headmaster could depute one of the most experienced teachers in the school to make the visit in the light of specific weaknesses in

a given school which require professional help.

This delegation of the evaluating and advisory function could present two advantages in addition to the fact that it would help to lighten the load on existing inspectors. The first is that visits to schools could be undertaken with clearer objectives since the headmaster would get to know the schools very well and prepare their visits so as to concentrate on the most necessary tasks and inform the inspectors of progress in the school. A second advantage would be to make priorities for training inspectors and headmasters rather clearer.

Of course, a system of "sub-inspection" by headmasters rests on the assumption that there are, in the Sankhuwa Sabha district, a certain number of qualified headmasters and senior teachers who would be capable of playing a creative role as inspecting assistants. We believe this assumption is valid. We would note, however, that a change of this kind would imply necessary changes in the regulations whereby relations between inspectors and inspecting assistants might be defined and incentives, including changes in the system of promotion introduced.

But beyond the concept of inspecting assistants, we would like to insist on the fact that the true supervisor of the work of the school must always be the head who is there all the time. The counterpart of a division of labour for inspection of schools is that the heads should be trained so that they can guide their work effectively. The importance of this fact should not be underestimated.

4. Reinforcement of the organisation of supervision

A number of measures are recommended to improve the organisation of inspection. These concern promotion and relations between inspectors and the DEO. As regards promotion, it is suggested that criteria should be reviewed for the promotion of inspectors as well as headmasters and teachers, having regard to possibilities of allowing for in-service study.

The problems of relations between inspectors and the District Education Office should be studied in order to see whether at the district level, it would be advantageous for the DEO and ADEO to be selected from a teaching and inspection rather than from an administrative background. In a wider sense, it would seem desirable to examine ways by which communication on matters concerning the school situation could be improved as between the schools, district, region and Kathmandu. The creation of a regionally based corps of subject inspectors provides an opportunity for progress in this sense.

Finally, it is necessary to make a special effort to solve the material problems of inspectors in the district. Lack of forms, difficulty of repairing copying machines and typewriters,

shortages of files and cupboards, etc., are typical bottlenecks which hamper efficient work. The elimination of these bottlenecks could allow an increase in the effectiveness of inspection. But if we accept that the main objective of inspection is less the control of inspectors than the use of the results of inspection, it is necessary to improve arrangements for planning inspection in the district, so as to achieve a greater degree of standardisation of action in connection with the results of inspection and to improve communications concerning the implementation of such actions as may be decided.

5. Improvement of the organisation of inspection at district office level

It seems to us that if the programming of inspection at district level is to be done by the DEO on an inspector by inspector basis, it is necessary that this kind of planning should be accompanied by school by school supervision, so as to follow systematically what has happened in a given school over the years. As has been noted above, monthly reports by inspectors must be followed up by the DEO in order to check the work of the inspector but other reports, school by school, must be written and filed appropriately. There would be two kinds of file: one for each inspector as exists now and one for each school in which reports of different inspectors could be found. There should be at least three copies of these reports, one for the district office, one for regional offices and one for the Ministry of Education, Subdivision of Supervision.

With this new approach to filing and to school supervision, there would be a possibility of following yearly events in each school. With a minimum of standardisation of reports according to a set list of topics, it would be possible to undertake effective analysis of specific problems at all administrative levels. For instance, it would be possible to undertake a district, regional or national analysis of pupil achievement in mathematics or pre-vocational or science education, or a survey of use of educational materials. In the same way, it would be possible to prepare summary reports at district level about the global situation of education in all schools in the district, showing the importance and scope of the strengths and weaknesses of education.

In this way, the inspectorate system could contribute to planning and forecasting in education. By re-organising methods and objectives for collecting information through the inspectorate system, it would be possible to set up much more systematic evaluation and analysis than exists at present.

In this connection, it is fortunate that the activities of the Division of Supervision at the national level have been evaluated. The Division is to be transformed into a division

whose main duty will be to centralise and analyse the results of inspection. It could thus become a centre which could contribute to the work of the statistical, planning and manpower divisions in servicing planning and decision making. In order to make this possible, it seems necessary to improve the material conditions of each level in the supervision structure. In our opinion, a reform whose aim is to transform the role and scope of work of the inspectorate as far as communication and control are concerned, should be studied carefully in the future.

VI. Nonformal education

Studies undertaken in developing countries show that there is a close connection between development and the effectiveness of adult education, the absence of which can constitute an impediment on economic and social development in rural areas. In Nepal, there is a general awareness on the part of the national authorities that the existing effort in this field should be intensified and a number of proposals are at present under consideration having regard to financial constraints and also the development of new concepts regarding the organisation and content of non-formal education. Our analysis of adult education has been made at district level and we have refrained from a wider analysis, since this would necessarily involve considerations of national policy and these, though extremely interesting, would exceed our mandate.

CHAPTER VIA. GENERAL FRAMEWORK AND THE SITUATION AT DISTRICT LEVEL

1. General framework of adult education in Nepal

Adult education in Nepal includes two kinds of activities: adult literacy and what is called, functional education. Adult literacy classes are given in primary schools with materials supplied by the government. Classes are held by primary teachers and last for five months. Apart from these classes given by the Ministry of Education, other bodies also provide adult literacy classes, for example, the womens' organisation and the National Development Service. Since 1971 a total of 238,000 adults have been made literate and it was estimated in 1976 that twenty per cent of adults were literate as compared with fourteen per cent in 1971. The budget allocated for adult literacy programmes is low, for example, that authorised by the Ministry of Finance in 1976 - 77 for literacy in Nepal was 3 million Rupees, (\$ 241,000).

Functional education, which is also known as functional literacy, is provided in order to improve the skills of the adult population. Agriculture and Home Science are the main topics included in this programme. This kind of adult education is given through vocational schools and courses normally have a duration of nine months. It is organised by the Ministry of Education on a rather small scale, for example, it is planned that in the country as a whole it will benefit some 2,500 people in the school year 1977 - 78.

Other Ministries and administrative bodies conduct their own programmes of adult education. For example, the Ministry of Agriculture provides agricultural extension programmes, the Ministry of Health also runs a health education programme, as does the family planning organisation. At present, these programmes represent line activities emanating from the Ministries to the districts, each with its independent staff and not always too well co-ordinated at the district level. Some duplication of tasks seems to have occurred. In this connection, the government has recently constituted a National Council for Non-Formal

Education. It is headed by a member of the National Planning Commission and includes representatives of the various ministries concerned. Among its main functions the Council responsible for drawing up policy guidelines related to non-formal education and for co-ordination of the different programmes being implemented by the Ministries.

2. Adult literacy and functional literacy programmes at district level

In 1977, there were 57 adult literacy classes in the Sankhuwa Sabha district, namely one class in each of the 41 panchayats and the rest distributed according to population density. In the SADP part of the district comprising nine panchayats, 12 schools out of a total of 21 provide adult literacy classes. For each literacy class, the primary teacher in charge receives 250 Rupees for the six months of instruction. Of this sum, 200 Rupees represents his special allowance for literacy work and 50 Rupees is for miscellaneous expenditures. He is supposed to give classes in the evening for six days a week over five months.

According to the rules, the minimum attendance required in order to open an adult literacy class is at least 20 adults every day. In fact, according to teachers interviewed, regular attendance may fall below that figure. There did not appear to be any particular mobilisation of the population for adult literacy by the panchayat in the district and participation was regarded as a matter of personal choice.

The books provided for adult literacy by the Ministry of Education purposes are in the process of being revised. Teachers with whom we spoke said that adults found difficulty in using them because of small print, high density on each page and the rather "old fashioned" nature of the contents.

Functional literacy courses are provided by the education authorities of the Sankhuwa Sabha district in only one school: the Wana Secondary School. The budget for the year is 1,900 Rupees which is spent in the following way: miscellaneous: 200 Rupees, books, exercise books and pencils for the adults: 200 Rupees, salaries of two vocational teachers for 9 months: 1,500 Rupees. At the beginning of the year, 25 adults were enrolled but of this number only 13 attended regularly.

For both adult literacy and functional literacy classes, there is at present no inspection. Sometimes in his reports, the primary inspector mentions that there is a literacy class in a given school. But we found no record of an inspector having attended a class or having advised the teacher. We found no mention in District Education Committee proceedings or in papers by the DEO about the effectiveness of the adult education classes when they conduct them. These reports should man-

tion attendance, progress in literacy and so on. In reality, teachers do not write such reports and send them to the District Education Office and the Office does not seem to insist on receiving them. It is also relevant to note that at present no follow-up to literacy classes is organised. Moreover, it would seem that the fact that information about the results of adult literacy classes is scarce at district level, suggests that national statistical information about progress of adult literacy is not always complete.

3. Adult education provided by the Ministry of Agriculture

The Agricultural Office in the Sankhuwa Sabha district is staffed by 7 field personnel, of which 4 are junior technical officers and 3 are junior assistants. Their duty is to visit the pan-chayats in the area within daily walking distance of Khandbari and explain to the peasants what they should do in order to improve production. They provide personal advice to farmers in the village, hold meetings, distribute posters and leaflets, and on a very small scale, provide fertilisers when they are available, and improved seeds.

4. Adult education in public health

There is a central office of Public Health in Khandbari and 5 local health posts at Chepua, Wana, Madi, Tumlingtar and Pakribas. A health centre had opened in Chainpur and a district hospital of 12 beds will soon be opened in Khandbari. In each health post, there are in principle 6 workers: one assistant health worker, one auxiliary nurse midwife, one senior auxiliary health worker, one clerk and two peons. Despite the fact that there are male nurses available and unemployed who have been trained in the Gurkha regiment, there is a general shortage of assistants, nurses and midwives in these posts, and in Chepua which is in the northern part of the district, the situation was described as uncertain. The aim of each health post is to provide an integrated health programme, including family planning, nutrition and child care. Health posts have no contact with the school system and in general provide treatment for villagers who come to them but do not "go to the villagers" to carry out teaching activities. The previous doctor based in Chainpur, used to give regular health classes to local people but it was on the basis of his goodwill and initiative.

5. Adult education in family planning

Two family planning clinics are operating in Sankhuwa Sabha district; one in Khandbari and the other in Chainpur. Six health aids, who have received seven weeks' training are also working in the field in six panchayats (Chainpur, Khandbari, Malta, Tumlingtar, Pangma and Chandanpur). Health aids work in the field on 8 days in each month and for the rest of the time work at the clinic. Their objective is to try to motivate people as regards family planning, and teach nutrition and mother and child health. The clinic in Khandbari started its work one year ago. Since that time it has undertaken 91 vasectomies, provided "the pill" regularly for 700 women, been visited by 1,400 mothers, and inoculated 700 children against diphtheria. Five hundred couples in the Khandbari panchayat agreed to become involved regularly in the work of child care and family planning at the centre. This effort, which includes a large amount of teaching on the spot, seems notable. It is worth mentioning that perhaps these kinds of result are possible because of the high level of financing. If one assumes that the total annual salary bill for 16 staff is roughly 40,000 Rupees and that material, rent, transport, etc., represent another 20,000 Rupees, this means a cost of 60 Rupees per person involved regularly in the work. By comparison, education costs for primary pupils or costs for adult education are much lower.

6. Forestry

Forestry services do not really participate in the programme of adult education, but the administration in the district does produce rules on forestry and tries, with the help of the panchayat authorities, to make them respected and this can be considered as a form of adult education. In the same way, people's participation in planting or re-planting trees can be considered also as adult education. There is a forestry office in Khandbari which covers two districts: Sankhuwa Sabha and Bhojpur. It controls 4 sub-offices in Khandbari, Chainpur, Bhojpur and Kaunwas, each of them led by a range officer.

7. An integrated project

According to our interview with the Chief Development Officer in November, 1977, an integrated project of adult education was planned for early 1978 for the northern part of the district. It had not yet been approved nor financed. It was to be located at Hatti in the panchayat of Chepua and would include one month of training on agriculture, health and handicrafts. The

combined group would be led by the Panchayat Technical Officer and would include supervisors, Junior Agricultural Technical Officers, health and handicrafts personnel.

8. Other programmes of adult education

Although not specifically introduced in the district of Sankhuwa Sabha, it may be mentioned that other efforts for adult education are being undertaken in Nepal. In order particularly to test new approaches and eventually to introduce them in the country, a new experimental plan has been set up for the year 1977 - 78 that will be tested in 8 districts at 40 points. This programme is based on the "needs of the population" and has as its objective to involve the people in productive activities. This programme has a budget of 700,000 Rupees and will affect 3,000 people and 400 persons will be actually involved in the work. At the date of our visit, the plan had not yet been approved by the relevant authorities.

CHAPTER VIB. CHARACTERISTICS, CONSTRAINTS AND PROBLEMS OF ADULT EDUCATION

1. Constraints on adult education

The principal constraints which affect adult education are basically the same as those to which formal education is subject but aggravated by the fact that adults are less easily available for education than are children. Constraints include the dispersion of the population, the lack of means of communication and transport, etc., and the fact that rural work acts as a bar to systematic study.

Constraints of a cultural type also hamper the spread of adult education. The population may not always be as interested in its own education as might be expected. Another important constraint is the status of women in the country which makes it difficult to attract them to adult education and find women teachers for it. But beyond these objective constraints, there are a set of operational factors which tend to hamper efforts to educate adults.

Perhaps the most important factor is the lack of educators. At present, teachers are required to teach adults, in addition to their school teaching because they are the only people available in all parts of the district, including the most remote areas. But if teachers are able to teach literacy in the traditional sense of the term, they have at present no knowledge of how to teach all the other topics which are priorities for the development of the district, particularly agricultural techniques and health matters. This raises the question of how teachers can best be prepared to contribute to the implementation of adult education policy in the Sankhuwa Sabha district. This is linked to the issue of how teachers should be trained in order to become "development agents" and not only teachers in the schools. It is a complex one and it cannot be answered at the local level since it is basically one of national policy.

2. Financial and organisational characteristics of adult education policy

When we look at national policy on adult education, we find that it is not at present a major policy priority. Even if the need is recognised to make a substantial effort to encourage development, this consciousness is not yet expressed in financial terms. As concerns the share of the Ministry of Education, the total budget for adult education involving literacy and functional literacy for the country as a whole, was only 3,000,000 Rupees in 1976 - 77, i.e. less than 1 per cent of the budget for education. Since more than half the population is over 14 years of age, this means that in principle the six million adults in 1975 benefited to the extent of only 0.5 Rupees per year from the Ministry's efforts. This is far from a situation in which everyone who is working is learning. An insufficient policy interest in adult education seems to be the main element in the actual situation and unless there is a change, there seems little chance of major improvement.

A second characteristic of the situation is the need for a concept which links together, at the different levels, the various types of adult education so that there is the greatest possible effectiveness of the total effort. At present activities are undertaken in the Sankhuwa Sabha district in a line sense, with a number of parallel activities radiating out to it from the capital without any co-operation and planning between them. This concerns the parts of adult education which are under the responsibility of the Ministry of Education and also the parts which are under the responsibility of other ministries and administrative bodies.

A third characteristic of the situation is the fact that there are no specific management structures in the district and above for the provision of adult education. Literacy and functional literacy is provided by primary and secondary schools. In other fields of adult education there are groups attached to each ministry working at the district level but there is no central co-ordinating point at the district level from which the various efforts can be linked. This aspect seems important because experience shows that unless very precise organisational arrangements are made, it is very difficult to ensure that adult education is adequately given by people who may not be able to teach properly without training which the formal education system and other bodies might provide.

At present, however, no specific methods exist for adult education. As far as the Ministry of Education's programmes are concerned, the methods of adult education are those of the formal school. Adults are considered as older pupils who have come to school to be taught. As for other ministries, methods vary and could benefit from improved approaches.

It is interesting to note that among the experiences of adult education, some seem paradoxically, to be overfinanced. This means that their value as pilot experiences may be low given the fact that their methods could hardly be diffused widely owing to a lack of finance.

The last but not least important characteristic of adult education, which is probably derived from the others or at least connected with them is the lack of political and popular support and enthusiasm for improving the situation. In fact, it would seem difficult to undertake any important step in adult education without creating a climate of voluntary participation and a certain kind of "mystique" for making progress.

CHAPTER VIC. POSSIBLE WAYS TO IMPROVE ADULT EDUCATION IN THE
SANKHUNA SABHA DISTRICT

The first requisite for improving the situation of adult education in the district is the emergence of a real political will to do so and with a significant increase in resources available for it. These questions involve decisions taken at the highest level in the Ministry of Education and by the Government. Assuming the necessary political will, different ways of organising adult education could be established according to the lengths that the authorities are willing to go.

If the effort remains limited although greater than today, it will not be possible to think of solutions that differ markedly from what is done today. This means trying to co-ordinate the activities of different ministries, experimenting with different solutions for mobilising the population for their education and so on. If the effort could be much greater, it might be possible to establish a new policy for adult education and a new organisation of a much wider scope, which would take account both of the objectives and of administrative limitations of work for the development of rural districts. While it is not in our terms of reference to give an outline of such a policy, we suggest that even on an experimental basis at district level, more specific machinery should be introduced for adult education, with the provision of specific trained teachers of adult education whose task would be to motivate the population, organise it for local development activities and teach it to take development and social projects into its own hands and manage them at local level. The aim of such adult education might be the self development of the village. In this perspective, two lines of study and action might investigate first, the panchayat as a focal point for organising adult education, and then panchayat personnel as the primary target for adult education.

1. The panchayat as a focal point

At present, like the schools, the panchayat structure is the only

one which exists throughout the country and even in the most remote areas. In principle, panchayats have an important role to play in the development of the country but until now, while important actions involving the mobilisation of the population have been taken by the panchayats, particularly as regards tracks, water supplies and school building, they have not played in general a direct role in productive development activities. Our investigation undertaken in the panchayats around Khandbari seems to show that it might be possible to give more responsibilities to panchayats for the management of local development activities. If the panchayat authorities could constitute focal points for local development, managing small projects, etc., it would be easier to attach adult education to these activities.

Our investigation, made mainly in the panchayat of Pangma, shows that panchayat members are quite willing to participate more directly in the task of development and education. It shows that they would willingly accept some additional tasks of managing projects and activities if these were supported by the district administration and the local population. In these conditions, one could conceive of a system in which the panchayat would be the central point for the adult education effort and that it would plan and co-ordinate the effort of all the representatives of administrations and bodies although it would let them get on with their own adult education work themselves. But such an organisation for adult education linked to local panchayat development projects supposes that panchayats are effectively able to manage the system.

2. The panchayat as a prime target for adult education

According to our investigation, it would seem that the panchayat members have a cultural level somewhat above the average of that of the population in the district as a whole, especially in the remote areas of the north where the educational level is much lower. It also appears that a policy giving priority to adult education of panchayat members, could be effective since it would enable them to act as teachers and organisers for part of their time and particularly in the months when they are not engaged in agricultural work.

In the first phase it would seem useful to concentrate adult education on the elected members of the panchayat. This is particularly important as far as literacy is concerned. One could conceive that to be an elected representative of the people implies a responsibility to engage in teaching literacy, agricultural matters and health. Specific classes could be given to panchayat members, so that each could specialise in a different field of development and thus panchayat members could be seen as

the main "multiplier agents" for adult education.

The advantages of giving first priority in adult education to panchayat committee members themselves seem to be numerous. As far as literacy is concerned, it would allow concentration of limited resources on a target which could be a link between the administration and population. It could improve the knowledge and abilities of people who would shoulder the development administration and tasks, thus reinforcing the political backbone of the country.

From a practical point of view, the panchayat committee is very easy to reach, it is concentrated and easy to inspect and evaluate as regards the results of training. Panchayat committee members are well known local figures and their example could motivate the population to learn and emulate them. On the other hand, because of their administrative tasks and the need for them to earn their living from agriculture, it would not seem possible to expect a voluntary contribution exceeding three months in each year, and a minority of those interviewed, while expressing eagerness to learn, teach and organise adult education, suggested that they would not mind being paid for their efforts.

It would seem that a result of giving priority to panchayat members in adult literacy and functional training would be an increase in their general knowledge and cultural level, which could in turn increase their managing and administrative capacities, especially as far as development projects are concerned. Panchayat members could thus constitute a solid base for government projects for development at the district level and mobilise the population for adult education and for development more effectively.

VII. Conclusions and recommendations

1. General statement of results

The object of this study has been to attempt to assess the specific role of the organisational factor in the development of education in a remote rural district of Nepal, Sankhuwa Sabha. In so doing we have not sought to judge the efficiency of organisation in terms of attempting to evaluate the objectives that the educational plan seeks to achieve, or asking whether the plan is soundly designed to attain the values that are postulated. We have accepted the objectives involved in the plan, and the educational and financial parameters. We have approached the problem of the efficiency of educational organisation by trying to find out how organisation can achieve the greatest positive results with given costs, or the greatest possible results for given opportunity costs, that is the alternative consequences of what has to be given up in order to follow the form of action which has been decided. We believe that in this cost-efficiency sense administration might be even more effective in attaining its objectives if new ways could be found to improve the organisation of the supply of resources and support for education at the local level.

Any assessment of ways by which the organisation of education in remote rural areas can be made more effective must proceed from acceptance of the fact that education is only one of the elements involved in economic and social development. Thus it is necessary to measure the imbalances in education itself and the discrepancies between what exists and what the Central Government wishes to see exist. But the improvement of the educational situation is not merely a matter of organisation. It is also a question of understanding and to some extent changing, or taking advantage of the environmental, socio/cultural, natural and financial restraints within which administration must function. We shall therefore refer to these factors before discussing the conclusions concerning the efficiency of the four supply factors at local level which have been at the

heart of the micro-study. These are school building and maintenance, management of the teaching force, production and distribution of books and materials for the schools and the organisation of inspection and control of education.

We are conscious of the fact that the analytical framework of the study is limited and that certain matters, such as the demand for education at the local level and the decision-making and communications structure at the national and regional levels require further and more substantial study. An implicit and fundamental assumption that demand for education exists in the district was not rigorously tested. The ways in which decisions taken at the national level, in conformity with a series of general policies and rules, are influenced by and influence the administration at the local level, have also been an integral part of the study, but we have concentrated our main attention on discrepancy analysis at the micro level of educational supply in relation to the government's objectives and organisational arrangements. Our findings thus represent a step towards a better understanding of the diagnostic and implementation problems of organisational efficiency in education in remote rural areas.

2. The main problems affecting education

The situation in 1977 compared with that prevailing in 1972 before the inception of the National Education System Plan shows that great progress has been made in the provision of schooling for the Sankhuwa Sabha district. A substantial proportion of the relevant age group is now enrolled in school. Nevertheless a number of disequilibria exist which need to be resolved if H.M. Government's objectives for the generalisation of modern, scientific and vocational education are to be achieved.

The first imbalance concerns the quantitative ratios between the different levels of education and, in primary, different age groups. More than a half of the children leave school after the first year. The drop-out from primary after three years to lower secondary is heavy as is that from lower secondary to secondary. This is associated with a shortage of lower secondary schools and of hostels in secondary schools. Perhaps to reduce drop-outs at lower secondary level, primary school facilities in some areas should be extended and utilised for teaching grades 4 and 5 in certain schools. A second kind of imbalance concerns the lack of trained teachers. While much has been done, there is still a substantial proportion of untrained teachers in primary and secondary schools and a lack of competent subject teachers in science, mathematics, English and vocational subjects. This weakness is reflected in the examination success rates. In addition there are problems

concerning the supply of books, visual aids, professional guidance and the material conditions in which teaching takes place.

A third element of imbalance concerns the proportion of girl pupils and female teachers. Girls represent only one fifth of the pupils in primary schools and in secondary the proportion is lower.

There is also an imbalance in educational provision within the district. The density of the population is an important factor explaining this imbalance but it is not a sufficient reason. It is also due to the fact that the remote areas of the district are the poorest and that part of school financing is the responsibility of the local inhabitants.

An essential aim of the educational administrator and of the Government, is to seek to reduce these imbalances. We will now consider on the basis of the field studies to what extent educational administration is able to achieve these tasks successfully.

3. The relationship between the socio-cultural environment and the organisation of education

It may be observed that the general level of efficiency of the educational system at the local level is essentially a function of the economic, social and cultural environment from which it stems. If the organisational potentialities of the administrative part of the system are limited in a number of ways, having regard to what is expected of school administration in more developed countries, this is because the social "milieu" from which the administrative staff is drawn is in a state of development which is different from the societal model which implicitly is being sought. This observation may appear to be a truism since it is only another way of saying that vicious circles exist and explain why it is difficult to break out of the chains of underdevelopment. Nevertheless, it may be useful to consider more deeply what are the factors which influence the personal capacities unfavourably.

First, it may be said that the competence of personnel at the lower level of educational administration, headmasters, teachers and even inspectors, could be greater because there has not yet been time to train the personnel who have to administer the system which has greatly expanded in less than a decade. There is a lack of "trainers of trainers". The improvement of the competence of managerial personnel can, for deeply rooted historical and cultural reasons, only be gradual. It will require additional resources. Second, the socio-cultural environment from which teachers are recruited is not very favourable to the training of scientific personnel, mathematicians

or people for vocational education. The problem of training and recruitment of this type of teacher is associated with the more general issue of the status of scientific, technical personnel and skilled workers in society in general. Consequently it may be necessary to consider what special steps are required in order to provide the requisite incentives to attract and retain these types of personnel in the educational system.

The prototype of the vicious circle mentioned above is illustrated by the difficulty of recruiting women personnel. The difficulties involved in the education of girls mean that it is also hard to establish a socio-professional basis for the recruitment of women teachers and this in turn limits the enrolment of girl pupils. The rate of progress of girls' education in secondary schools shows that socio-cultural factors will limit the rate of training of women teachers. While encouraging progress has been made, it has not been rapid.

The massive effort undertaken by HMG during recent years and the narrowness of the socio-cultural base from which it started have inevitably meant that the authorities have had to accept a relatively low educational level among the teachers and inspectors. Here, independently of strictly organisational factors, the basic educational achievements of the junior staff have had their effects on the educational system.

The problem of the relationship between the socio-cultural milieu and the level of efficiency of educational administration may be seen in terms of what may be described as "organisational value added". In fact, the notion of a vicious circle according to which the environment determines the quality of the administration, which in turn determines the power of the administration over the environment does not allow us to understand the real nature of the problems nor find a solution for them. Vicious circles may be progressively broken if "virtue" is introduced at one point or another within the circular process. Thus each element of development, however small, brings about a more favourable situation for the progress of the educational system and improves its efficiency and, conversely, progress in the efficiency of the educational system brings about improvements in the environment in which it operates. The problem, however, is to determine what is the source of energy necessary to bring forth the requisite "organisational value added" which can progressively and positively modify the relationship between education and the socio-cultural environment. We shall discuss below whether, or to what extent, this energy is entirely financial or whether there are elements of an organisational kind which in themselves can help break the vicious circle of administrative underdevelopment. But before we do so, we shall consider the impact of the natural environment on the organisation of education.

4. The effects of the natural environment on the efficiency of organisation

However the internal efficiency of the educational organisation may be measured, the geographical environment in which it operates will tend to make its costs of operation, in terms of the performance of equivalent tasks, higher in the mountainous areas of Nepal than on the plains. Put in another way, it may be said that the effectiveness of management will always be less, the quality of the personnel being equal, in the difficult areas. In the Sankhuwa Sabha district, particularly in the central and northern areas of it, the dispersed population, absence of rapid communications, the absence of roads and bridges will slow down the two way movement of information and instructions between the institutions, the District Office and the Regional Headquarters. The fact that education must be managed "on foot" represents a structural weakness which directly reduces the general efficiency of control independently of the quality of the controllers.

There are also some indirect effects caused by the difficult geographical environment. Thus, through processes of social selection which are difficult to describe completely, the most remote, poor and desolate areas in the district tend to lose their best human resources since they seek a livelihood in less difficult places once they have been educated. In these areas, which represent the extreme limits of the administrative apparatus and particularly education, the staff are usually those who are least able to manage affairs well. Efforts to train personnel will always result in a much lower yield than in the urban or semi-urban areas in the south of the district, since despite all efforts the geographical wastage will always be greater. It is therefore necessary to take this wastage into account when attempts are made to assess the efficiency of administration. Consciousness of the need to make special efforts in the remote and difficult areas, together with moral encouragement to members of the administration to work in those zones, are unfortunately not sufficient to obtain a significant movement of good people to them. It might be said without risk of contradiction that the effectiveness of moral encouragement will be inversely proportional to the rigour of conditions in the area in question.

To some extent an improvement of the quality of educational management in difficult areas, and in so far as it is, in part, influenced by geographical factors, is dependent on a general increase of expenditures in the areas, not all of which will be the responsibility of the Ministry of Education. Thus to the degree that the quality of education is linked with the process of development as a whole, (as is the principle underlying HMG's Small Area Development Programme), the building of roads and bridges, establishment of improved communication, post, radio transmitters, branches of banks, etc., will create improved

conditions for educational administration to dominate its environment. In the same way, specifically, an increase of expenditure on special allowances for teachers to encourage them to remain in the difficult areas, or an increase in the number of inspectors to reduce the delays linked with geographic and climatic conditions are factors which to some extent can bring about an increase in the efficiency of administration (measured in terms of school results rather than in the unit costs of administration) in difficult areas.

From the point of view of the effect of both the socio-cultural and the natural environment on the quality of administration, it may be said that there are determinants of the level of efficiency of management which are relatively independent of the technical structure of organisation. As concerns these factors, it is argued in some quarters that an improvement in the management of education is dependent to a greater extent on the policy decisions concerning the level of expenditure to resolve them than on organisational decisions in the strict sense of the term.

5. The financial constraints

The analysis which we have undertaken could lead to one of two lines of argument. The first would be that the only way to break the vicious circle imposed on the development of education by socio-cultural and natural factors is through the massive injection of financial resources. The second would be that examples from other developing countries show that a substantial and rapid increase of money for education has not in itself sufficed to remedy the problems with which education is beset, and that the productivity of increased financial contributions may tend to remain low unless accompanied by other measures. We will examine these arguments below.

The view that the vicious circle breaking energy in Sankhuwa Sabha cannot in the main be other than financial rests on the hypothesis that a lot more money would allow an improvement in the intrinsic quality of education. The essential problem would be to decide which expenditures would produce the greatest "multiplier" effect. The systematic reduction of bottlenecks in accord with a series of priorities chosen for their "multiplier" propensity would result from careful planning. As a first approximation, it might be suggested that more resources should be spent on in-service training of teachers, headmasters, inspectors and administrators. Hostel facilities, particularly for girls in secondary schools, should be increased. Loss of income to schools due to free enrolment of girls should be compensated. New measures should be designed whereby educational facilities and personnel in the remote areas are greatly

improved including the provision of long-term interest free loans for the improvement of physical facilities and increased revolving fund possibilities. Through financial measures the prestige of the teaching profession headmasters and inspectors, should be improved. Greater support should be provided for those panchayats which lack the resources to build, maintain and supply their schools with materials, books and libraries. In addition, more scholarships should be provided for rural areas.

The second argument would proceed from the fact that the amount available for education is a function of what is allocated by HMG and panchayats and individuals respectively. The contribution of HMG as concerns the district is determined by the relative priority decided for education as compared with agriculture, communications, health and so on, as well as the priority accorded within the educational budget for school and higher education. At present the share of education in the national budget is about 10 per cent and the authorities intend that it should remain at that level. Because of manpower needs, higher education will continue to be accorded a high priority within the educational budget vis-à-vis school and particularly secondary education within existing financing arrangements. It would be argued that within existing expenditures, many actions are being taken to improve the quality of teaching and learning. Consequently any substantial increase in resources for education, apart from an increase related to the increase in tax revenues consequent on rising national income, must be found at the local level through improved mobilisation of local resources for education.

A reconciliation of these two viewpoints would mean that acceptance of the fact that at present, in the respects mentioned above, there is a shortage of money and also that money is not being fully productive owing to the existence of bottlenecks and waste in the educational system. Consequently more money is required and part of the needs will hopefully be met by an increase in the educational budget financed in part by external assistance. But within the global amount allocated by the government, new efforts are required in order to reduce the money wasting syndrome in education. Some objectives are of great complexity such as cutting drop-out, particularly of girls, repeating of grades, and improving the morale of the teaching force. Others are more straight-forward and involve tasks of planning and financing at the national and sub-national levels. These include new efforts of training the teachers and administrators, building and equipping the schools and organising the greater mobilisation of local resources and energies in the educational process. Suggestions concerning these matters are set out below.

6. Buildings, furniture and maintenance of schools

It is suggested that studies on the raising of human and financial resources at local level for buildings and maintenance of schools in hill areas should be undertaken in order to ascertain to what extent the standards which the authorities consider to be adequate are maintained as a result of local efforts and initiatives and what still needs to be done. For example, it would seem necessary that, for each district, arrangements whereby the minimum seating and accommodation standards are observed and the quality of building and furniture is at least as favourable as good local practice permits, become the rule rather than the exception. Partly this is a problem of money and the collection of local resources. It is also a question of the diffusion of instructions and guidance from the national capital and the regional office in the form of documents supplied or visits of specialists, so that panchayats become aware of the standards in building and maintenance which are desirable and possible.

More profoundly it would seem necessary to review the functions and the performance of the two bodies which are at present responsible for raising resources for education and guiding the educational system at the district level, namely, the School Co-operation Committee and the District Education Committee respectively.

It is suggested that, with regard to the organisation of resources for buildings and furniture, the School Co-operation Committee does not yet possess the specific functions which can allow it to mobilise human and monetary resources in the most effective way. The Committee is, in principle, an institution which constitutes the point of contact between the administration of education and the local government, panchayat, leadership since the headmaster of each school for which there is a Committee and persons elected or nominated by the panchayats are members. Since the main function of this committee is to ensure popular support for the schools, its effective functioning is indispensable if the budgetary resources provided by the Ministry of Education are adequately to be supplemented locally in respect of those vital supply functions which are a local responsibility.

The working of this committee is sometimes hampered by the fact that it is dependent on the division of tasks and powers as between the panchayat and the District Education Office or its representatives. At present, since the headmaster administers the school according to rules decided by the DEO, there may not be sufficient participation of the representatives of the panchayat in the running of the school and the headmaster may not be effectively controlled by the Committee. Conflicts concerning the fact that the representatives have no control over payments or over the transfer of teachers may lead to an atmosphere which

does not favour the raising of resources locally for the school. Disagreements must be resolved as a result of negotiation between the District Education Office and the panchayats. School Co-operation Committee should exercise more financial control of school expenditures. In fact, mobilising resources for schools should be very much the responsibility of panchayats.

In many cases it has seemed to us that the activity or inactivity of the School Co-operation Committee in mobilising the local community for support of the school is a function of the energy and determination of the headmaster, rather than the energy of the panchayat itself. There is a contrast between the panchayat effort in building and furnishing the school and in supporting it once it is in existence. It would seem desirable to consider the implications of the fact that headmasters are asked to perform functions, namely the mobilisation of local resources for the school which are, in terms of educational administration, outside their normal duties. Moreover, in the higher realms of educational administration there are at present no functional arrangements for the systematic organisation of and support for the resource raising duties of headmasters, who operate for better or for worse in a sort of administrative vacuum in this regard. Given the considerable importance which the collection of local resources, whether for building, maintaining or supporting a school represents, it would seem desirable to consider whether, since the School Co-operation Committee has a role to play in this regard, the powers of the panchayats in relation to the schools should be reinforced so that they could, perhaps as has been argued by creating new means of producing income, make a larger contribution to school resources, even in cases such as the remote areas where a more substantial government grant may be unavoidable.

It is also suggested that the role of the District Education Committee in the development of education at the district level needs to be studied. That body, which at present constitutes the link between education at the district level and the district panchayat would seem at present to have a somewhat passive and "rubber stamp" role in relation to what the District Education Office proposes and does. However, the Committee might in principle play a more positive role, both as regards monitoring and critical assessment of arrangements for establishment of schools and, through the visits and interest of individual committee members, their operation and day to day problems.

7. Production and distribution of school materials

It is suggested that ways should be explored whereby existing shortages of books, visual aids, writing materials, radios and films might be alleviated. At the primary level the Ministry

of Education in co-operation with UNCIEF distributes readers to all new pupils. It is necessary that these books should be well cared for by the pupils and perhaps ways might be found whereby some improvements are made in this respect. At the secondary level the pupils buy the books and it is important that the supply of school books at the local level should be studied in order to ensure that the supply is adequate. In both primary and secondary schools resources for the development of library facilities, both for pupils and teachers, need to be explored. Perhaps the most urgent issue, as concerns untrained teachers in primary and secondary schools is to make sure that each of them possesses, understands and uses the teachers' guides which have been prepared at the national level but are frequently not available in the schools.

The fact that posters and maps are in short supply, and that radio and film equipment are virtually non-existent in the schools is largely due to a shortage of funds since the responsibility of purchasing these items would fall on the school. It is therefore necessary to study what new resources at national or local level may be forthcoming to provide these materials. It would seem desirable that certain types of visual aids such as maps, posters should be produced in larger quantities centrally and distributed to the districts at the beginning of each school year. As regards the teachers' own contribution, in certain schools in the Sankhuwa Sabha district teachers have produced exhibits of natural life, handicrafts, health advice (in co-operation with health personnel). These initiatives might be studied as a basis for improving this work by the teachers.

8. Production and management of teachers

Without prejudice to new thinking about how school teachers might best contribute to the development of rural communities, it may be said that the essential problem as concerns teachers is that they should teach well. The study has shown that there is a major problem as regards the supply of trained teachers in the Sankhuwa Sabha district. Its solution depends on what is done at the national level in the 14 campuses of the Institute of Education in long-term pre-service training of teachers of all types, particularly subject teachers and, to a great extent what is done at the district level, with the help of campus staff, regional office staff and others, to provide substantial in-service training for the large proportions of untrained teachers in the schools.

As regards long-term and in-service training it is suggested that there would be an advantage if a comprehensive plan for teacher training and re-training were to exist at the national

level, since at present it is difficult to ascertain the needs and the output situation for training and re-training of different types and the relevant contribution of each of the 14 campuses. This is particularly the case for teachers of science, mathematics, geography and the English language. It is suggested that on the basis of the Sankhuwa Sabha study, campuses in each hill region should also offer courses in these subjects. Possibly other campuses of the Institute of Education and campuses of other institutes (particularly the Institute of Social Sciences) might increase their support for in-service training of teachers also.

There is growing recognition among officials at the district, regional and national levels that if the substantial lack of training among primary and secondary teachers is to be reduced over the next five years, a major attack on the problem at the campus and district level will be required. Measures to relieve the shortage of women teachers should also be studied. We have noted that the scale of in-service training at the campuses has been limited, particularly at the primary level by lack of finance, and at the secondary level, particularly for teachers of science, mathematics and English, by lack of qualified candidates. The organisational problem would therefore seem to be to mobilise resources at the district level so as to provide sufficient courses, spread over the requisite number of years, so that subject teachers and primary teachers acquire the appropriate and recognised qualifications. It is also necessary that the number and duration of courses in the preparation and use of materials, and the techniques of multigrade teaching should be increased. The organisation of teacher training at the local level, mobilising staff of training institutes, inspectors, teachers and qualified administrative personnel is an example of "multiplier" effect actions which would seem to merit that the authorities should give them high priority among expenditure choices.

It would also seem desirable that the district administration should pay particular attention to ways of maximising the effectiveness of the use of trained teachers in the schools through a policy of improved utilisation of teachers. One difficult problem appears to be for teachers to cope with the large intake into grade 1 of primary schools so that the present substantial attrition rate of about a half of the pupils who do not accede to grade 2 is reduced. This would seem to be a task for qualified teachers. Perhaps new possibilities might be investigated whereby qualified primary and secondary teachers, whose existing teaching load may not be great, could contribute to teaching in the first grade of primary schools. It is necessary that arrangements for assigning teachers to schools should be reviewed so as to eliminate under-utilisation wherever possible. The district administration recruits primary teachers

directly and, subject to budgetary approval being given at the national level, pays 100 per cent of their salaries. The problem of assignment is therefore rather straightforward and can be resolved within each school, it being understood that the use of teachers within small rural schools is a subject which requires much study and thought. The district educational administration collaborates with the Governing Council of Secondary Schools in selecting teachers. It makes a grant towards salary costs. The main problem facing the authorities appears to be that teachers are not always fully utilised and ways of ensuring, where necessary, that each teacher should be responsible for a number of subjects, should be examined.

It is also suggested that the District Education Office should be enabled to organise the requisite training for headmasters so that they can better fulfil their duties of providing leadership in the teaching process and administration of the school. Inspectors, at best, can only visit a school three or four times in each year. It is therefore important that heads should know how to run their schools successfully in the intervening period.

9. Inspection and control of schools

It has been suggested that head teachers, outstandingly good teachers and education officers with the appropriate teaching experience and background should supplement the work of the inspectors, and that the latter should be able to devote more of their time to the evaluation and improvement of the work of the schools. The work of the inspector and the strategy of mobilising available competent people for inspection and improvement of teaching would imply that the District Education Office would follow the work and development of each school systematically and would use a number of methods, such as demonstration classes, establishment of "model" schools, competitions, in-service training and regular advice. It would seem necessary that certain of the administrative duties which are at present performed by the district inspectors, though not all, might progressively be undertaken by panchayat administrative personnel and other specialised personnel.

If a more consistent professional role is to be played by district inspectors, it would seem that training courses, commensurate with these responsibilities need to be organised. At the regional level, the staffing changes recommended in the mid-term evaluation report, which have been partly implemented, should enable the Regional Office to play a stronger supportive role in relation to the districts than hitherto. At the national level also the Supervision Division in the Ministry of Education should include secondary, lower secondary and primary

education experts. Certain improvements in the conditions of work of the inspectorate should be explored. It is to be hoped that the inspectorate will be enabled to make its evaluation and advisory work more effective and also to exercise a necessary monitoring role so that the Ministry is regularly and fully informed about the situation and specific problems of education in the schools, by district and region. This means that the inspectorate would become an important instrument of synthesis and guidance of educational policy.

10. Problems of administration

The administration of education in Nepal provides an example of relatively efficient execution of the central government's decisions and regulations, within a framework of control in which important functions of financing and running the schools have been devolved on to the local authorities. We would conclude that certain changes in the administration should be studied if "formalism" is not to lead to negative consequences, if administration is to be adequately staffed and if the most favourable conditions for co-operation between the school system and the population at the district level are to be created.

Formalism, for our purposes, may be defined as being concern with the form in which instructions are carried out rather than with the content of the situation to which instructions are directed. In other words control, which should be concerned with results becomes concerned with formal performance. The study of the administrative arrangements for inspection, for example, show that control is exercised in terms of the number of days inspectors have been on tour, the number of schools visited, the number of forms completed. But there is no systematic filing, analysis and follow-up, school by school, by the district authorities. Study is needed of ways in which reports are filed and followed and also of the adequacy of the material means available for the secretarial and administrative work involved (files, cupboards, paper, typewriters, duplicating machines and materials). It is notable that information regarding teachers which is needed for payments purposes tends to be well filed by school, whereas information regarding each school obtained through the visits of inspectors and other officials tends not to be filed. Consequently the District Office finds difficulty in preparing synthesis materials which would normally be of value at higher levels of the administration.

The capacity to follow the work of the schools in the district, to report adequately about it to the Regional Office and carry out instructions effectively is also a function of the training and the conditions of work of the administrative staff. These are affected by the strong centralised control which has

been established in order that education should be administered despite a scarcity of administrative personnel. It would seem that, naturally, the best educated and competent personnel are found at the national and regional levels and that, for salary and other reasons, those levels act as magnets, drawing the best personnel out of their "exile" in the districts to the large towns. It is also the case that just as the educational administrators enjoy better conditions than the inspectors, so too administrators attached to certain ministries, for example the Ministry of the Interior, receive higher total emoluments than educational administrators. There are thus built-in incentives for competent educational administrators to seek to leave the district and in any case they are not stationed in a district for more than three years, which is short.

It is suggested, therefore, that ways should be explored whereby educational administrators who are from the hill districts and know their problems might spend more substantial periods in each district and that ways might be found to improve the two way traffic of administrators between the capital, the region and the district educational office in this sense. The study has also raised the question of the educational qualifications of the district educational officer and the assistant educational officer. At present both these officers are administrators. But there might be advantage if the conditions for entry into district educational administration were to include previous experience of teaching and school inspection.

11. Administration and the population

The administration of education has been structured according to prevailing principles of departmental structure, regulations and hierarchy. It functions rather well in this sense. Nevertheless existing arrangements do not provide sufficiently for well articulated arrangements for promoting co-operation between education and the population. In particular the School Co-operation Committee does not at present fulfil this functional role.

The School Co-operation Committee is in principle the main point of contact between education and civil administration since the headmaster and representatives of the panchayats are members. The essential function of the Committee is to ensure popular support for education, notably through the collection of local resources, which are indispensable for the running of the schools as a complement to resources provided from the Ministry of Education's budget. This mixed responsibility for payments, in the wider sense, for the school would not seem at present to be sufficiently matched by the sharing of responsibility for the school. The panchayat as the source of local resources collec-

ted for education, normally seeks to exercise a measure of control over the use of those resources. But as the administration of education, legally, has control over the schools, the headmaster tends to escape from control by the panchayat. The Committees seek, for example, to have the power of appointing temporary teachers, or being consulted on the transfer of teachers, or having an equal say with the headmaster on the spending of money. Conflicts with regard to these and other matters have adverse effects on the running of the school, and can normally only be settled at district level as a result of discussions between the district education officer and district panchayat officials.

These problems may also have negative effects on the raising of resources in the district. In most cases the activity of the School Co-operation Committee is a function of the energy displayed by the headmaster. But it may be mentioned that this work by the headmaster, which involves the social mobilisation of the population, lies outside the scope of the administrative regulations and that within the various levels of administration there are no bodies to guide the resource raising activities of educational institutions. In other words, these activities are carried out in a sort of administrative vacuum. Given the importance of resource raising, it is necessary to explore ways of increasing the activities of the School Co-operation Committees. In a wider sense popular support for the schools and for non-formal education depends on the ways in which the panchayats are able to obtain resources, of which part for education, form their activities and the adequate development of education in the Sankhuwa Sabha district remains dependent on their basic support for popular education.

Bibliography

- Ben-David Val A. and Walker P. *Action oriented approaches to regional development planning*, New York, Praeger Publishers, 1975.
- Bennet N. *Education for rural development - the attempts of many countries*, Reports Studies S.41, Paris, Unesco, 1977.
- Blackwell J.E. *Fundamental Education and Village Development in Nepal*, Community Development Journal, Vol. 4, No. 4, October 1969.
- Caplan L. *Administration and politics in a Nepalese Town*, London, Oxford University Press, 1975.
- Carron G. and Ta Ngoc Chau *Regional Disparities in Educational Development*, IIEP/RP/19/15A, Paris, IIEP, November 1977.
- Coombs P. and Ahmed M. *Attacking rural poverty: how non-formal education can help*, Baltimore, John Hopkins Press, 1974.
- Evans D.R. *Responsive Educational Planning - Myth or Reality?*, IIEP/S39/12, Paris, IIEP, October 1976.
- His Majesty's Government, Nepal *District Administration Plan 1975*, Kathmandu, Implementation Committee.
- His Majesty's Government, Nepal *Development of services benefiting children in Nepal - Plan of Operations 1975 - 1980*, with Unicef, WHO, Unesco.
- Home Panchayat Ministry, Nepal *Panchayat Darpan*, Vol. 5, No. 15, February 1975 and Vol. 6, No. 18, Jawalakhel, Training Material Production Centre.
- Home Panchayat Ministry, Nepal *Central Panchayat Training Institute - a working plan*, Jawalakhel, Training Material Production Centre.
- Home Panchayat Ministry, Nepal *Small Area Development Programme - a survey report on area delimitation in Parbat District*, Kathmandu, 1975.
- Kleis R. *Case-studies in non-formal education*, Michigan State University, 1974.
- McCabe J. and Padhye N. *District of Kaski, Nepal, Planning of location of schools*, Paris, IIEP, 1975.

The Sankhuwa Sabha District of Nepal

- Ministry of Education, Nepal *List of educational materials and equipment*, Kathmandu, Technical Education Division.
- Ministry of Education, Nepal *National Education System Plan for 1971 - 1976*, Kathmandu, 1971.
- Ministry of Education, Nepal *The speech part of grades 4 and 5 English Language Curriculum*, Lalitpur, Lusha Press.
- Ministry of Education, Nepal *Primary Education Curriculum*, Kathmandu, Curriculum Development Centre.
- National Education Committee, Nepal *Prospects and problems of Educational Innovation in Nepal: Chitawan and Kaski*, by P.K. Kasaju and L.N. Belbase, Kathmandu, 1973.
- National Education Committee, Nepal *Implications of free primary education in Nepal*, Keshar Mahal, 1976.
- National Education Committee, Nepal *Education and Development*, Kathmandu, 1975.
- National Education Committee, Nepal *On education in Nepal*, Kathmandu, 1974.
- National Education Committee, Nepal *Nepal's Education Plan*, Kathmandu, 1975.
- New Educational Reform Associates *Report on implementation of Nepal Education System Plan*, Kathmandu, Ministry of Education, 1973.
- New Educational Reform Associates *Final report of the study of the supply and utilisation of educational materials at the school level in Nepal*, Vols. I, II and III, Kathmandu, June and December 1975.
- OECD *New patterns of teacher education and tasks - teachers as innovators*, Paris, 1976.
- Padhye N.R. *Financing first-level and second-level education in Nepal*, *Financing educational systems: case-study No. 8*, Paris, IIEP, 1976.
- Reed H.B. and Reed M.J. *Nepal in transition: educational innovation*, Pittsburgh, University of Pittsburgh Press, *Studies in Comparative Education No. 7*, 1968.
- Sato K. *An alternative approach to educational planning for employment promotion in Nepal*, Bangkok, Unesco Regional Office for Asia, 1974.
- Schram W., Coombs P. et al. *The new media: memo to educational planners*, Paris, Unesco: IIEP, 1967.
- Sharma C. *Education in Nepal - its problems and prospects*, J. Abstracts in International Education, University of Toledo, Vol. 3, No. 1, Winter 1972.
- Unesco *Managing Education for Rural Development - Report of advanced level workshop New Delhi 17 - 26 March 1977*, Bangkok, Unesco Regional Office for Education in Asia, 1977.
- Unesco *Trends and Problems in Science and Technology Education in Asia Report of a Regional Meeting, Singapore 20 - 26 July 1976*, Bangkok, Unesco Regional Office for Education in Asia, 1976.

Bibliography

- Unesco *Women, Education, Equality*, Unesco Press, Paris, 1975.
- United Nations Economic and Social Council *Study on the equality of access of girls and women to education in the context of rural development*, E/CN.6/566/Rev. 1, New York, February 1973.
- UNICEF *Children of the Hills and Valleys, Unicef in Nepal 1964 - 1974*, Kathmandu, Unicef, 1975.
- Wood H.B. *Development of Education in Nepal*, US Dept. of Health, Education and Welfare, 1965.

The organisation of education in the New Halfa District of the Sudan

Hamza Mudathir El Haggaz
Abdul Wahab Abid Rabbo
El Fatih Abdel Rahim El Sanasi
Abdel Wahab Ali Saeed
Mohed El Amin El Ajabani

from the Ministry of Education, Khartoum

R.F. Lyons, *Senior Programme Officer*
A.C.R. Wheeler, *Consultant*

from the IIEP

Contents

I.	Introduction and purpose of the study	199
II.	The Sudan: general background and educational system	202
III.	The New Halfa district	213
IV.	Education in the New Halfa district	223
V.	Some qualitative aspects of education in the New Halfa district	233
VI.	Adult education	244
VII.	The structure of educational administration . .	247
VIII.	The finance of education	264
IX.	Teacher training and upgrading	269
X.	The supply of educational materials	281
XI.	School building and maintenance	285
XII.	Local community participation in education . .	287
XIII.	General conclusions and observations	290
	Bibliography	297
	Appendix	299

I. Introduction and purpose of the study

The educational system of a country functions on a number of levels, from that of the national administration down to that of the individual school and classroom, where the teacher interacts with his pupils. In the past, considerable attention has been paid to either end of this spectrum, and in particular to the national machinery for educational administration and planning. By comparison, the role of the local administrative unit, which is primarily one of local implementation of educational policies, and reporting back on their effects, has received somewhat less attention. This paper is a step towards rectifying this weakness by means of a case-study of a particular instance of local organisation. As such the applicability of its findings outside the boundaries of the area studied is limited. Indeed, it became clear during the course of the study that while some findings are generally valid, others would not be applicable even in the neighbouring districts of the same province. But since national educational policy must be applied to a range of local educational situations, it is arguable that the findings of a series of such local studies could have a useful role in making national policies more relevant to the variety of local circumstances confronting them.

The officials of the local educational administrative unit, be it known as a district, commune or whatever, are those directly in touch (at least in theory) with the schools, particularly the primary schools, and what goes on there. In such a role, it is their task to oversee the local implementation of national policy, and to report back on its efficacy and relevance. This study attempts to delineate the actual role of the local administration in a particular instance, while also taking some account of the roles of other levels of the educational system.

The study approaches education at the local level as a process of supply of different kinds of resources: trained teachers, maintenance of school buildings and equipment, and various kinds of educational materials. Also relevant to this approach are the sources and methods of financing education, the structure

and functions of the various components of the administration, including inspection. At the same time, the study tries to take account of the diversity of the recipients of this educational effort and their varying attitudes to it. The concern is to analyse the local impact of education, and the role of the local administration, to identify operating difficulties and shortcomings and to suggest remedial actions.

At the wish of the Sudanese educational authorities, the area chosen for the study was the New Halfa district in Kassala province in the east of the Sudan. The first part of the study is descriptive: the country and educational system are discussed, the former briefly and the latter in somewhat more detail. This is followed by an analysis of the recent economic and social evolution of the New Halfa district, which is essential background to an understanding of the development and impact of education. The next two sections concentrate on the local development of education, viewed both quantitatively and qualitatively, with particular attention being paid to local disparities. The development of adult education in the district is also discussed briefly. There follows a detailed analysis of the system of educational administration, from the national down to the local levels, including the inspection arrangements, which attempts to delineate the respective roles of each level. The system of financing education is also explained at this point, with an examination of the latest local data. One of the more important sections of the study deals with questions of teacher training and upgrading and the conditions of service of teachers. Procedures and problems in the supply of educational materials are examined together with schoolbuilding and maintenance. There is also a brief appraisal of the role of local participation in education. The study ends with conclusions and recommendations.

Nearly eight weeks were spent in the Sudan collecting material for the study. This included two visits to the study area, one shorter visit to the provincial authorities in Kassala and a brief visit to the Institute of Education at Bakht-er-Ruda. These visits were made difficult by the limitations of most of the roads in the study area, and the restricted supplies of fuel, which are themselves factors to ponder in relation to the efficiency of local educational administration, particularly when the extreme heat prevailing for most of the year is also borne in mind. The rest of the time was spent at the Ministry of Education in Khartoum collecting data and materials, visiting educational institutions and in discussions with various national authorities concerned with education. During the field visits, discussions were held with all the relevant local officials, but most of the time was devoted to visiting schools and talking to the principals, teachers and children, and to some local community leaders. Various educational officials participated in this work

in a number of ways: arranging programmes of visits, interpreting and translating documents and collecting statistics. In addition two papers on the conditions of service of teachers and on the finance of education, were prepared by officials of the Ministry of Education, and their findings have been incorporated into the present study¹.

As might be expected, some of the conclusions of the study have national implications, while others are only of local concern. But even the latter merit being reviewed for their relevance in other areas of the country.

It only remains to observe that the unfailing courtesy and kindness of all the Sudanese officials involved in the preparation of this study have been a major contribution to whatever value the study has.

1. Hamza Mudathir El Haggaz, *'Finance of Education in the Sudan'* and Abdul Wahab Abid Rabbo, *'The conditions of service of teachers and their effect on the functioning of the educational system'*.

II, The Sudan : general background and educational system

A. GENERAL BACKGROUND

The Sudan is the largest country in Africa, some 2.5 million sq. kms. in area. It lies within the tropics and rainfall decreases northwards, so that the ecology changes from tropical forest in the south through savannah and grassland to arid desert in the north. This generalisation is locally modified by the presence of the Nile and its tributaries, and their dependent irrigated areas. Physically the country is a flat plain, relieved only by occasional rocky outcrops and by several isolated mountainous areas along the Red Sea and in the south of the country.

Since no large deposits of economically significant minerals have yet been discovered, the economy remains basically agricultural in character. A small industrial sector is mainly concerned with the processing of agricultural products, both for domestic consumption and for export. The major constraint on the agricultural exploitation of the northern half of the country is the inadequate rainfall, though paradoxically the nature of the soils over some areas is such that they quickly become waterlogged following rain, limiting local communications and further restricting cultivation possibilities. Agriculture is divided between rain-fed production of staples and irrigated production of cash crops, including cereals. Stock-raising is also important, much of it carried out by nomadic groups. According to the 1976-1977 Economic Survey, per capita income was approximately \$US 250 per annum.

In mid-1978 the total population was estimated to be 16.8 million. The breakdown of the population in 1976 was estimated to be 20% urban, 70% settled rural and 10% nomadic, while some 45% of the total were under 15 years of age¹. The annual rate of

1. Sudan, Ministry of National Planning, *The Six Year Plan of Economic and Social Development 1977/78 - 1982/83*, 1977, Vol. I, p. 84.

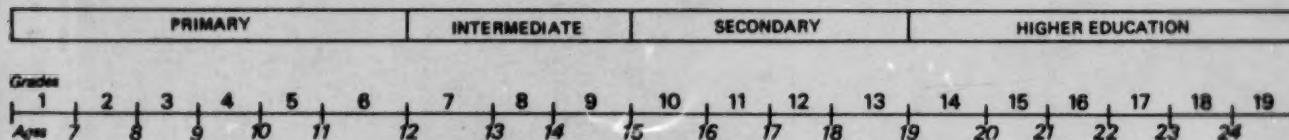
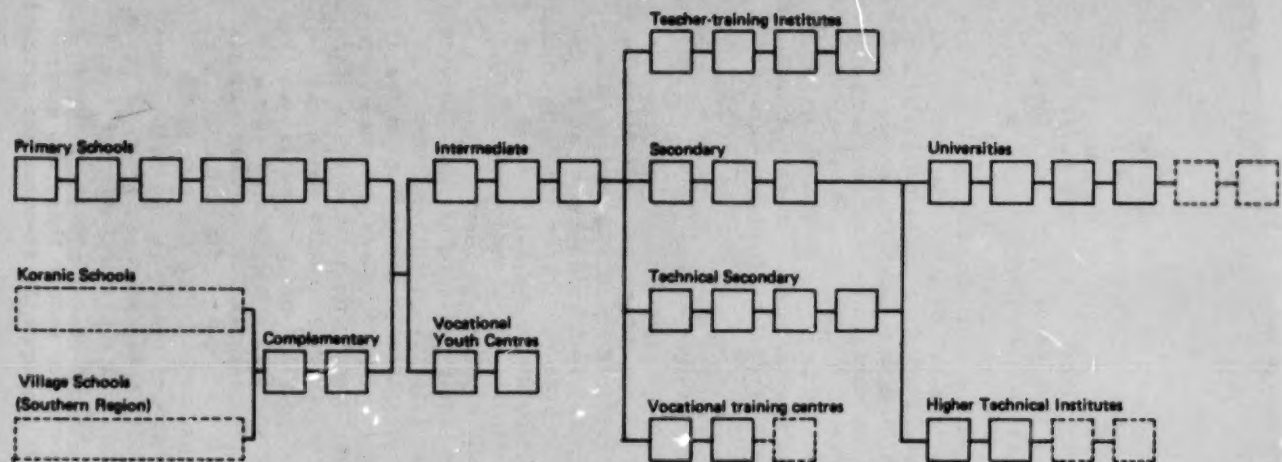
growth of the population is of the order of 2.5%.

B. EDUCATIONAL SYSTEM

The present educational structure in the Sudan derives from the reform of 1970/71. Figure 1 shows the educational ladder resulting from this reform. Six years of primary education are followed by three years' intermediate and by three years' secondary in the academic stream or four years in the technical stream. These in turn led on to university and other third-level institutions providing courses of up to six years' duration. Training of primary teachers is provided for four years following intermediate education, of intermediate teachers for two years, and of secondary teachers for four years at the Faculty of Education following secondary education. More recently graduates of secondary schools have also been taking one year courses to become primary teachers. Finally, various types of vocational and youth training centres exist in small numbers for graduates and drop-outs of primary and intermediate education. These are intended to be terminal courses preparing their trainees for employment.

C. THE CHARACTER OF SUDANESE EDUCATION

Before elaborating on the extent and growth of the Sudanese educational system, it is useful to understand something of its character. There is a continuing world-wide debate as to the role of the education system in both developing and industrialised countries. Two principal viewpoints are: (i) that education is the conduit through which the individual absorbs knowledge of the world, and perhaps develops the capacity to learn further for himself, and (ii) that education is a process to prepare individuals for their future life of work, leisure, parenthood, etc. In the former, the individual progresses through the system as far as he is able at the accepted standard of performance and then drops out, subject to the qualification that in most countries there is a certain initial period of compulsory education which all students are meant to complete. Since performance is usually measured by passing examinations, this conception of education tends to become distorted by the pressure for academic success in order to stay in the system - the search for information to permit one to pass examinations, rather than the search for greater knowledge and greater competence. In the latter conception, each stage of the educational system is intended to be complete in itself - a preparation for participation in the economic system at a certain level - and increasingly there is some mechanism of "second chances" to permit those who stopped education at an early stage to subsequently re-enter and proceed



Source: Ministry of Education, *Educational Statistics, Academic Year 1977/78*

FIGURE 1. Structure of the educational system of the Sudan.

further. These are very brief and over-simplified portrayals of two extremes of a spectrum, and most countries contain elements of both of these points of view in their conception of the role of their educational system.

In the Sudan it must be said that the main emphasis is on the former conception of education as a conduit for knowledge distorted by the pressure to survive through examination success. Attention to the need to prepare students to later earn their own living is not totally lacking but it is limited in comparison to the pressure to achieve academic qualifications and progress through the educational system. Moreover, such provisions as there are on paper to give a vocational slant to education are often ignored in practice. These points are discussed in greater detail later in the study with specific reference to the New Halfa district.

It is not surprising that the Sudanese educational system should be oriented strongly towards the achievement of academic excellence as measured by examination success. A number of forces combined to encourage this orientation. Historically the system developed under colonial auspices as a mechanism for training indigenous administrators and clerks. Other people who did not enter the public service also received an education but this result was incidental to the main objective. The prestige, security and relatively high pay which go with senior administrative posts, access to which necessitates successful passage through the academic stream of the educational system, has made students and their parents hitherto strongly predisposed towards this educational route. Lastly, teachers and educational administrators have a predisposition towards preservation of an academic, examination-oriented educational system. This is partly because of bureaucratic conservatism, which prefers to pursue innovation to the extent that it has to be pursued through supplementing rather than supplanting what already exists.

Conversely the criteria of success of a work-oriented educational system tend to lie at least in part outside the system. If subsequent career progress is indicative of the success of a work-oriented education, it is immediately clear that education is only one of the factors influencing success, and that its contribution may be difficult to isolate, and moreover can only be evaluated some considerable time after the period of education. By comparison the success of an academic system is easily measurable in terms of its examination pass-rates, leaving aside the question of the adequacy of this criterion.

In the absence of the necessary data relating to the local level, two examples will serve to throw light on the nature of the Sudanese educational system. Table 1 shows those sitting the final examination at each level of the educational system,

less than 50 per cent succeed in entering the next level. Even though drop-outs within each level of the educational system are no longer a major problem in most of the country, the implication of these data is that there is a serious drop-out or wastage problem at the end of each level. The tendency is to regard such drop-outs not as those who succeeded in completing so many years of education, but rather as those who failed to complete a given level, and were successful only to the end of the previous level. In other words, the years spent in the level at which they failed to pass tend to be considered as wasted. What counts is the highest formal qualification attained and promotion to the next level of the system¹, rather than the number of years of education completed.

Table 1. Examination passes and promotions 1977/78

Examination	No. of candidates	No. of passes	Accepted for % next level	Acceptance as % of passes
Primary	213 487	7 844	55.2	71 564 60.7
Intermediate	85 297	50 868	60	25 387 49.9
Secondary	40 371	25 851	64.0	9 610 37.1

Source: Ministry of Education, *Sudanese Education: an Appraisal and Strategy for Action*, Khartoum, February 1977, p. 33.

The ILO Comprehensive Employment Strategy Mission to the Sudan in 1975 portrayed the probable experience of a cohort of 1,000 boys and 1,000 girls in the Greater Khartoum area over 12 years, based on unchanging enrolment, retention and transition rates. This shows how few students proceed beyond primary education and it should be noted that the greater availability of private facilities in Khartoum provides a better chance of pupils remaining in the system than might be the case elsewhere in the country. Also primary enrolment rates are highest in the Khartoum area, so that relatively fewer people remain uneducated.

In Table 2 the progress of a given cohort can be seen from two points of view. On the left-hand side of the table the numbers of boys and girls in the cohort entering each successive stage of the educational system are shown. On the right-hand side the same cohort is considered in terms of numbers existing at each stage of education, with the qualification that those entering higher education at the bottom on the left-hand side are left out of

1. ILO, *Growth, employment and equity: a comprehensive strategy for the Sudan*, Geneva, 1976, pp. 124 - 7.

Table 2. Educational experience of a Khartoum cohort

Progress up the system	Boys	Girls	Boys	Girls	Exit Points
	1 000	1 000	1 000	1 000	
			70	130	No education
Enter primary	930	870	40	60	Drop-out during primary
Reach primary Class 6	890	810	416	530	Fail primary 6 exam.
			21	18	Pass exam. but leave
Enter intermediate	453	262	185	119	Fail intermediate exam.
			109	65	Pass, but too low to be promoted
Enter academic secondary	134	72			
Enter technical secondary/teacher training	25	6	97	67	Leave after secondary
Enter university	20	3			
Enter higher technical institutes	17	1	25	7	Unaccounted for

Source: ILO, op. cit., pp. 397 - 401.

consideration on the right. The point is that the vast majority who leave the educational system after primary or intermediate education have failed to qualify for the next stage, and have not been prepared to exit at these points. Thus to some extent their educational experience is negative in character, and they gravitate into employment as a second-best alternative to staying in the educational system. Moreover, some of them try through such devices as evening classes to make another attempt at passing the examination they previously failed, in order to have a chance of re-entering the system.

D. THE GROWTH OF EDUCATION

It is in the light of this evaluation of the character of Sudanese

education that the statistical evidence of the growth of the system should be considered. The major educational goal in the Sudan is to achieve universal primary enrolment by 1990, but as recently as 1975/76 only some 40% of the 7 - 12 years age group were enrolled in primary schools, without considering the impact of over-age enrolments. Another 5% of this age group were enrolled in Koranic schools, which are intended to become an alternative channel into the upper grades of primary education¹. For this purpose an institution known as the complementary school is being established. It will provide 2 years of education, corresponding to the 5th and 6th grades of primary education, and will either be attached to an existing primary school or be set up as a separate institution, according to local circumstances. The entrants from the Koranic schools should be in the 11 - 13 age group, and must pass the equivalent of the fourth grade examination. In the subsequent stages of the educational system the enrolment ratios are of course much lower, and in addition there are at all levels considerable regional inequalities, e.g. in some of the southern provinces less than 20% of children aged 7 were entering primary school in 1975².

Educational enrolments have expanded rapidly throughout the system, as is shown in Table 3. Enrolments of girls rose at a faster rate at all levels between 1969 and 1976. Nevertheless, in the academic year 1975/76 females remained in the minority in all types of education, i.e. 33.9% of primary school enrolments, 31% of intermediate, 30.2% of academic secondary, 11.6% of technical secondary, 41.7% of those in teacher training, and 16.6% of enrolments in higher education³.

At the primary level the rate of increase of the number of classes has been faster than that of enrolments, 152% as against 110% 1969 - 76. This implies that average class size decreased from 54 to 46 over the same period. However, since class size is known to be much greater in the main urban areas, e.g. up to 100 in some Khartoum schools, the implication is that in the more recently opened rural schools, classes are much smaller than the average, as the catchment areas are presumably more sparsely populated or there is continuing parental resistance to their children's education, because of the economic role of the children in the family living pattern.

Compared with many developing countries, the existing educational facilities in the Sudan appear to be provided on a relatively generous scale. The best indicator of this is the use made of teachers. In the year 1978/79 teacher-pupil ratios were

1. Ministry of Education, *Sudanese education: an appraisal and a strategy for action*, Khartoum, 1977, pp. 29 - 44.
2. Ibid, p. 193.
3. Ministry of Education, *Sudanese Education*, op. cit., p. 30.

1:35 in primary schools, 1:19 in intermediate, 1:21 in academic secondary streams and 1:12 in technical secondary streams. However, class sizes are normally 50 or more in all types of schools except in some rural primary schools. This implies that teachers may be somewhat under-used, particularly at the upper levels of the system, compared with some other countries. Even at the primary level teachers concentrate on particular subjects so that each class will have several different teachers and each teacher should have a number of periods without teaching duties each week, in theory allowing him more time for lesson preparation, marking, etc. At all levels of the system it is normal for teachers to teach 18 periods per week (i.e. 13½ hours), and only in subjects such as Science or English, where there is a shortage of teachers, is the individual teaching load likely to rise to 24 periods per week. This implies that the average teacher spends only half or less of total school hours actually teaching, and so has the rest of the time for lesson preparation, marking, etc. Ideally these proportions should be reversed.

The educational level of the teachers is generally sufficient. In 1979 the percentage of trained teachers was 90 per cent at the primary level, 87 per cent at the intermediate level and 75 per cent at the secondary level.

The supply of books also appears generally adequate, though local exceptions to this statement can certainly be found, particularly at the beginning of the school year. The overcrowding of classrooms means that furniture is usually inadequate, where it exists, and the standard of maintenance of school facilities frequently leaves something to be desired.

Table 3. Growth of educational enrolments (Thousands)

	Primary	General secondary	Upper secondary	Higher
1969/70 Both sexes	578	124	40	11
Females	194	28	9	1
1976/77 Both sexes	1 254	210	72	22
Females	447	67	20	3
1977/78 Both sexes	1 320	241	89	25

Sources: 1969 and 1976, Sudan, *The Six Year Plan ...*, op. cit., Vol. 2, pp. 130 - 133.

1977, Ministry of Education, Khartoum, *Educational Statistics, 1977 - 78*.

Another special feature of the Sudanese educational system is the extent of boarding education for the academic year 1978/79 (see Table 4).

Table 4. Extent of boarding in education (1978/79)

Level and Type	Total No. of pupils	No. of pupils in Boarding School (Government only)	% of Boarders
Primary	1 349 501	98 907	7.3
Intermediate	248 845	52 303	21.0
Secondary (Government Academic)	78 273	26 144	33.4
Senior Secondary (Government Technical)	11 715	8 248	70.4

^ Source: Ministry of Education Statistics, 1978 - 79

Is there another country in the world, particularly at the Sudan's level of development and of provision of educational facilities, with such a high ratio of boarders in its student population? It would seem unlikely. The implications for the unit costs of education are serious. Taken in conjunction with the cost implications of the comparatively lavish use of teachers and the increasingly serious national budgetary constraints, it seems likely that the Sudan will have great financial difficulty in meeting its goal of universal primary education during the 1990s through expansion of the existing types of educational facilities.

E. CURRICULUM AND CONTENT

The content of the syllabus at the various levels of general education lends support to the argument put forward earlier that the education system is oriented too closely to the goal of preparing the student for entry to the next stage of the educational system.

As can be seen from Table 5, almost all the subjects taught are academic. In practice the potentially vocational subjects - art and rural education - are generally not taught at all because of lack of materials and appropriately trained teachers, but also perhaps because of parental and pupil pressure, since these are not examination subjects. The periods thus freed in the timetable can then be used for extra study of the key examination subjects.

Beyond this, the method of teaching is a further indication of an overly academic approach. It is commonly stated¹ that teaching is mainly by traditional rote methods, especially at the lower levels and observation of classes in the New Halfa district generally confirms this impression. Children are treated as recipients of information and not discoverers.

Table 5. Syllabus content

Subject	Periods per subject and grade											
	Primary						Inter-mediate			Acad. Sec.		
	1	2	3	4	5	6	1	2	3	1	2	3
Religion	4	4	4	4	5	5	4	4	4	3	3	3
Arabic	10	10	9	9	9	9	9	9	9	6	6	8
English	-	-	-	-	-	-	9	9	9	6	6	8
French	-	-	-	-	-	-	-	-	-	4	4	4
Mathematics	6	6	6	6	7	7	6	6	6	6	6	7
Science	-	2	2	3	4	4	4	4	4	6	6	-
Biology	-	-	-	-	-	-	-	-	-	-	-	4
Chemistry	-	-	-	-	-	-	-	-	-	-	-	4
Physics	-	-	-	-	-	-	-	-	-	-	-	4
Geography	-	-	2	2	2	2	3	3	3	3	3	4
History	-	1	1	1	2	2	2	2	2	3	3	4
Civics and Social Sciences	-	-	-	-	-	-	1	1	1	1	1	-
Art	3	3	3	3	3	3	2	2	2	3	3	4
Rural Education	-	-	2	2	2	2	2	2	2	-	-	-
Physical Education	2	2	2	2	2	2	-	-	-	1	1	-
Total	25	28	31	32	36	36	42	42	42	42	42	42 ¹

Note¹: Optional subjects at the secondary level are (a) Maths or Biology, (b) Physics or English Literature, (c) Chemistry or History, (d) Geography or French, (e) Art.

Source: Ministry of Education

F. CONCLUSION

The purpose of this section has been to present a review of those features in the development of education in the Sudan thought most relevant to this study. Most important is the orientation of the

1. e.g. Ministry of Education, *Sudanese Education ...*, op. cit., pp. 110 ff.

system, with its strong bias towards the highest possible level of academic achievement, a goal which only a minority can hope to attain, either because of lack of facilities or lack of intellect. The system is not at present closely geared to the needs of the great majority who will not go to university or complete secondary education.

III. The New Halfa district

A. LOCATION

The New Halfa district lies within Kassala province in the east of the Sudan bordering on Ethiopia.

Kassala province has an area of some 128,000 sq. kms. and at the 1973 census had 1,059,891 inhabitants, of whom 22% were urban, 55% settled rural people and 23% nomadic. The province varies between savannah and semi-desert, so that the principal activities are stock-raising and a limited rain-fed agriculture, mainly to produce cereals. It is crossed by the rivers Atbara and El Gash, which are the sources of water for the El Gash and Khashm el Girba irrigation schemes, in which a more diversified agriculture takes place. The main rain-fed crop is sorghum, whereas wheat, peanuts and cotton are grown under irrigation, together with sugar.

The centre of the New Halfa district is the Khashm el Girba irrigation scheme. The district lies on the left bank of the Atbara River, along which it stretches for some 130 kms. in an approximately northerly direction and extending some 50 kms. to the west, so that its total area is about 6,500 sq. kms. It is some 400 kms. east of Khartoum across the flat and arid plain of Butana. The irrigated area totals some 500,000 feddans¹ or about 30% of the whole district.

B. POPULATION

In the April 1973 census the New Halfa district was recorded as having a total population of 172,701 persons. A more detailed breakdown of this population is shown in Table 6.

Unusually, the census shows an excess of males among the settled population. This is because at the time of the census,

1. One feddan = 1.03 acres or 0.412 hectares : some 515,000 acres or 206,000 hectares.

April, there is a considerable temporary immigration of males for harvesting work on the agricultural scheme and at the sugar factory. The underlying pattern of emigration of local males to seek other work is reflected by a slight excess of females in the 20 - 24 age group of the settled population.

Table 6. Population of New Halfa District, April 1978

	Both Sexes	% of population	Females
Rural New Halfa	71 724	26.9	33 306
Halfa Town	63 965	23.9	30 103
Nomads New Halfa	13 733	5.1	6 377
El Massnaa	18 877	7.1	8 766
El Sabaat	43 507	16.3	20 203
Khashm el Girba	55 292	20.7	26 023
Total	267 098	100	124 778

Source: Sudan, Department of Statistics, Population Census Office.

An understanding of the population structure of the district requires some explanation of its recent history.

C. DEVELOPMENT OF THE KHASHM EL GIRBA IRRIGATION SCHEME

The district was chosen as the resettlement area for the Nubian population displaced from the stretch of the Nile Valley to be flooded as a result of the construction of the Aswan High Dam. As part of the 1959 Nile Waters Agreement between the then United Arab Republic and the Sudan, the latter country undertook the Khashm el Girba scheme involving construction of the Khashm el Girba dam on the Atbara River and creation of the irrigated area within the present New Halfa district. Formerly an area of sparse population dependent on nomadic stock-raising and limited agriculture, this was to become an intensive agricultural area and in the first instance a new home for the displaced Nubians, who were thus to be superimposed on an existing population with a different pattern of life. The Nubians on the Nile practiced

irrigated agriculture, in particular date production, but population pressure caused many of their menfolk to migrate to towns in both Egypt and the Sudan where they worked in a variety of urban occupations, particularly as administrators, clerks and teachers¹. The community was thus relatively well-educated and prosperous compared with the rest of the Sudan, though many of its migrant members had been obliged to return to their Nile Valley homes by political developments in Egypt shortly before they were due to be moved to New Halfa.

The Khashm el Girba irrigation scheme was established by 1964 and some 50,000 Nubians were moved into it in the first phase of its settlement. To house them, 25 seemingly identical villages of concrete houses, complete with services, such as a school, a mosque, some shops and a clinic were constructed. Agricultural holdings were allocated to most heads of families on a tenancy basis. Each tenancy covers an area of 15 feddans (6.3 hectares). The tenants are closely supervised by the Agricultural Production Corporation which manages the scheme and they are obliged to cultivate their land on a three year rotation basis, growing in turn cotton, groundnuts and wheat. Cotton is grown on a crop-sharing basis between the tenants and the Corporation, with the latter preparing the land and providing inputs and loans, while the tenants have the main responsibility in the cultivation of groundnuts and wheat, though the Corporation may assist them with the provision of seeds and fertiliser.

Subsequently, several extensions of the cultivated area have taken place, mostly for the purpose of settling groups from the nomadic tribes living in the surrounding areas, in particular the Shukriya and some of the Beja tribes. An important difference is that these groups have not initially been provided with housing and other services. Consequently their villages consist of a mixture of mud huts and tents, and their schools and other services are in the first instance self-provided. However, their tenancy arrangements are similar to those of the Nubians. By 1974 there were 21,968 tenants in the scheme, of whom 6,407 were Nubians, 11,632 were Shukriya and the remainder came from other nomadic tribes². In addition, a state-owned sugar cane plantation and refinery has been established within the irrigated area as a separate operation, employing direct labour mostly brought in from the western provinces of the Sudan and forming a

1. G.M. Sorbo, *Scheme and Off-Scheme Interests: a study of Nubian Resettlement in the Sudan*, Thesis, University of Bergen, 1973, p. 27.
2. G.M. Sorbo, *Nomads on the Scheme - a study of Irrigation Agriculture and Pastoralism in Eastern Sudan* in O'Keefe and Wisner (ed.), "Land Use and Development", London, International African Institute, 1977, p. 132.

distinct community around the refinery.

It is generally recognised that the irrigation scheme has so far been only a qualified success¹. Perhaps the most important reason for this limited success derives from the inexperience of the tenants. The Nubians exchanged the fertile and rainless Nile Valley for a flat semi-desert area with a rainy season, when communications are seriously hampered. Also they were expected to cultivate unfamiliar crops using new techniques, and they were located among strange nomadic tribes, some of whose traditional grazing lands they had taken over. Moreover, many of the Nubian heads of families to whom tenancies were given had not been farmers before. The nomads who became tenants were also unfamiliar with the crops and methods of cultivation used in the scheme, and also had to overcome the transition from a nomadic to a settled existence. Malaria and Bilharzia, which did not exist in Wadi Halfa are serious problems in New Halfa.

Several other technical and ecological reasons may also be mentioned as contributing to the limited achievements of the scheme. The Khashm el Girba dam was designed to hold 1.3 billion cubic metres of water, but annual silting from the floodwaters brought down by the Atbara River was estimated to have reduced its capacity to 0.97 billion cubic metres in 1975 and this trend has presumably continued. Thus water scarcity tends to occur in the months preceding the June to October rainy season, and this affects principally the wheat crop which is not harvested until April. The variability of annual rainfall is also an adverse factor: inadequate rain limiting crop growth and over-abundant rain hampering cultivation operations and stimulating weed growth. Operations in the scheme are highly mechanised, but inadequate maintenance of vehicles and machinery, unavailability of spare parts and recurrent fuel shortages, have all had adverse effects on operations and hence on production. Incursions by grazing animals are a further source of difficulties. Finally, and without elaborating on a complex subject, inadequate and considerably fluctuating prices for the crops produced on the scheme have inhibited tenant efforts because of their limited profitability.

Given the adverse impact of all these factors on tenant earnings from their holdings, it is not surprising that many tenants have developed alternative interests as a source of additional income. These take various forms. Many of the Nubian tenants have taken up alternative employment, either in New Halfa town or even, reverting to a former pattern, in other parts of the Sudan, e.g. the dining car services on the Sudan

1. G.M. Sorbo, *How to Survive Development: the Story of New Halfa*, Khartoum, Development Studies and Research Centre, 1977, pp. 17 - 24 and references cited therein.

Railways are operated mainly by members of this community. The former nomads among the tenants in many cases have continued or revived their pastoral activities. In either case, the effect seems to be the same - wage labourers are brought in by the tenants to do the actual cultivation work on their holdings. These labourers may be from the neighbouring nomadic tribes, which thereby tend to become more settled or they may be immigrants from other parts of the Sudan, who establish their own small settlements within the scheme and form another distinct element in the districts's population. In addition, increased seasonal demands for agricultural labour on the scheme, particularly for cotton harvesting, lead to temporary population movements into the irrigated area from settlements outside whose inhabitants are otherwise mainly pastoralists.

The growth of New Halfa town to be the service centre for the whole area, as well as the location of cotton ginning, flour milling and small scale industries, has had an impact on the population outside the town boundaries. Because of rising urban rents, increasing numbers of people commute each day from neighbouring villages to work in the town. This in turn is a further stimulus to the absentee tenant phenomenon in these villages, as their original inhabitants can live and work elsewhere and gain a further income from renting out their houses to those commuting to New Halfa to work.

In summary, then, the Khashm el Girba scheme was conceived as a highly mechanised and relatively intensive tenant-farming operation, to re-settle the displaced Nubians and also to provide a settled existence for some of the indigenous nomads. Instead many of the holdings are worked by paid labourers at relatively low levels of productivity, while the tenants pursue other more lucrative activities, either within the area or elsewhere.

D. THE OFF-SCHEME POPULATION

This rather detailed explanation of the population structure of the New Halfa district must be completed by reference to the communities living within the district but outside the irrigated area. These people are basically pastoralists, practising varying degrees of nomadism but they are not a homogeneous group.

Along the valley of the Atbara River are a number of villages whose existence pre-dates the irrigation scheme, and which in some instances have long-established primary schools.

1. The eastern boundary of the irrigation scheme runs a few kilometres west of the river, so that the settlements on or close to the river lie outside the scheme.

Their inhabitants practice some agriculture on the banks of the river but otherwise are pastoralists and seasonal labourers in the scheme.

Outside the western boundary of the scheme lie a series of villages known locally as the "Arab" villages, some of whose inhabitants have tenancies though not living within the irrigated area. Otherwise they engage in stock-raising and rain-fed cereal cultivation on their own account and act as paid labour on the scheme.

The distinction between nomadic and settled populations in the area outside the scheme is not a clear cut one. Rather there are various degrees and patterns of nomadism which tend to shade into one another. These depend in part on the varying grazing requirements of the different animals kept - camels, cattle, sheep and goats. As many pastoralists also engage in cereal cultivation during the wet season and there are social barriers to female participation in many types of work, there are periods of the year when the pastoralists have great difficulty in meeting the labour requirements of their various activities. This may cause them to withdraw their children from school for economic reasons, even if only temporarily. At one extreme are groups such as the Rashaida, camel breeders, who undertake extensive migrations well beyond the boundaries of the district with their animals, live in tents and have at best locations to which they return at certain times of the year. Conversely, there are groups from other tribes who have become more or less settled, sometimes building huts and keeping some animals while cultivating cereals and perhaps even working periodically in the irrigated area. In such cases some male members of the family may move around with the animals, while others remain in one area to carry on cultivation.

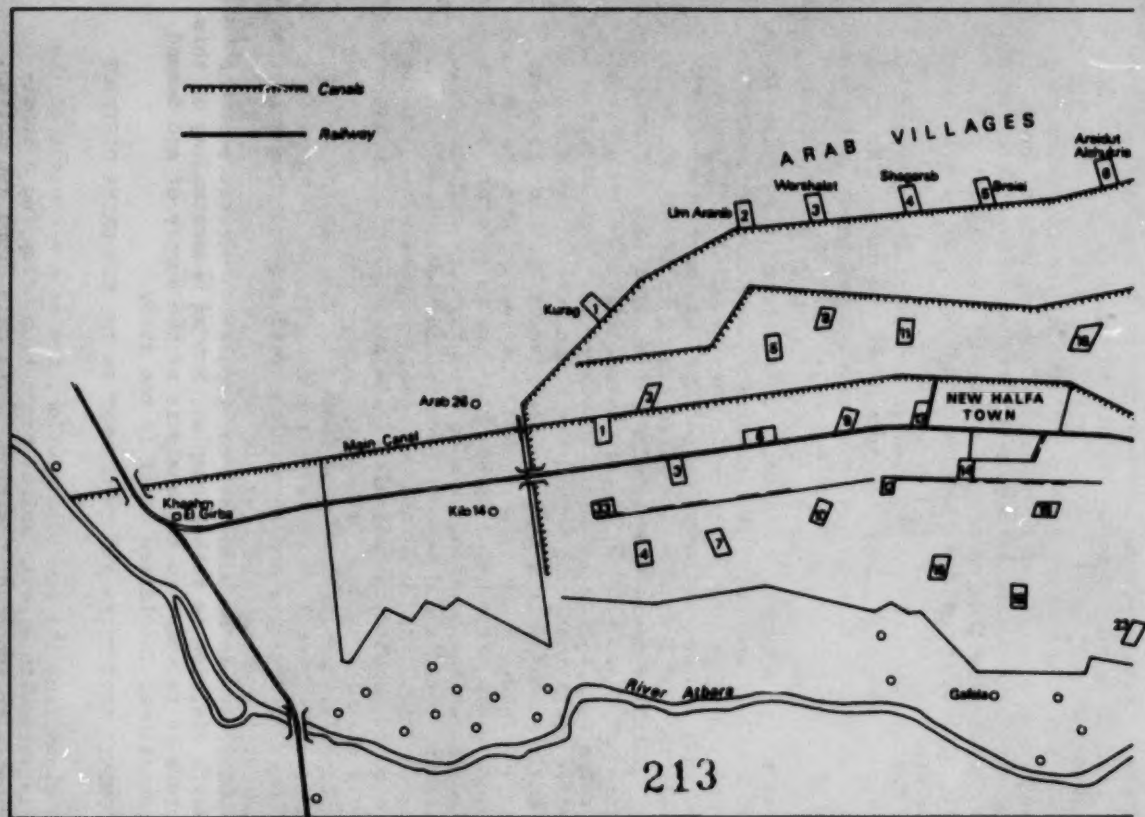
Finally, the small town of Khashm el Girba at the southern end of the district lies close to the dam site which supports a local fishing activity and is also the road and rail communication centre for the whole area.

Thus, it can be seen that the population structure of the New Halfa district is rather complex, but an understanding of this structure is relevant to the analysis of the supply of and demand for educational facilities later in the study.

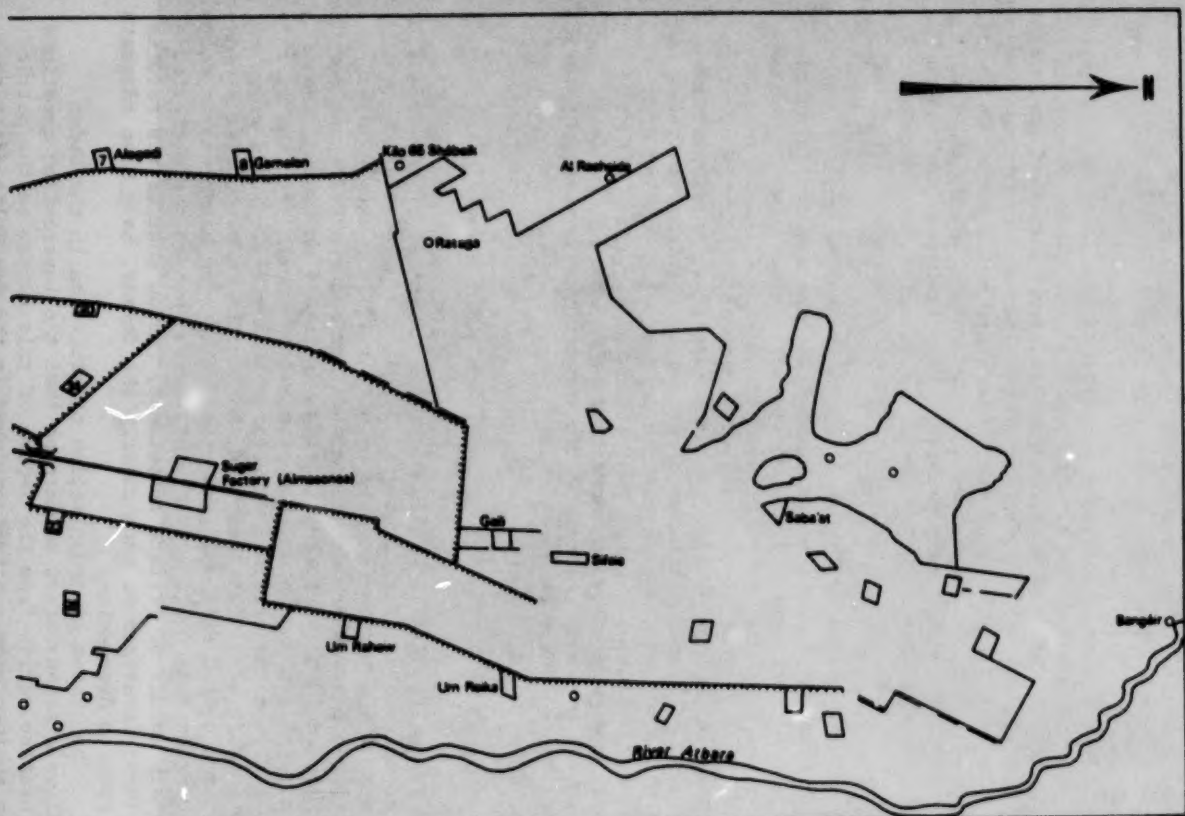
E. ECONOMIC ACTIVITIES AND EMPLOYMENT IN THE NEW HALFA DISTRICT

As is clear from the previous section, the economic basis of the area is agriculture, with animal production occupying a subsidiary but also important position. The main crops are cotton, sugar, wheat and groundnuts, plus sorghum and fruit and vegetables for local consumption.

Cotton and groundnuts are mainly export crops, while wheat and sugar are produced for domestic consumption. In fact the New Halfa sugar plantation is currently the principal domestic source of sugar, some 75,000 tons per year, though it will soon



MAP 2A. The New Halfa district, southern section.



The New Halfa District

MAP 2B. The New Halfa district, northern section.

be overtaken by larger projects currently in course of implementation. There are local processing facilities for all of these products.

Thus the most important elements of the local employment structure are agricultural work and the associated processing activities. Other significant and related sources of employment are the Agricultural Production Corporation and the Irrigation Department. In addition, the town of New Halfa contains a wide range of public services, including education and health facilities, not to mention many private enterprises such as traders, garages, builders and a few small factories. Both New Halfa and Khashm el Girba are centres of inter-city transport services, while the villages have their own buses operating to the towns, all of which provide a further source of employment.

Although we have not attempted to quantify the existing pattern of employment, it is clear that a wide range of occupations can be found in the area, which potentially offer scope for school leavers to find varied employment. In any event, they may also look outside the area for work. A significant movement of labour which has developed in the last few years is the migration of Sudanese to work in the oil producing Arab states, particularly Libya and Saudi Arabia. This affects mostly the more educated segments of the labour force, e.g. teachers, but even members of the nomadic groups have left their families to seek work abroad.

F. CONCLUSION

The New Halfa district is in many ways untypical of the Sudan. It contains a variety of very different and unrelated population groups, which mingle socially to only a limited extent, e.g. marriages between Nubians and nomads, or between different nomadic tribes, would be exceptional, if not entirely unknown. The density of population and the standard of public facilities, particularly in the original Nubian resettlement area, are well above the average for Sudan and the Nubians in particular are better educated than most Sudanese. The area has been the focus of considerable public investment, which in turn has attracted a certain amount of private investment, though whether the returns to these investments, particularly the former, have been adequate is open to discussion.

The system of organisation of education in the Sudan follows a standardised pattern so that the interesting questions to examine derive from the impact of this system on the particular socio-economic situation found in the New Halfa district, and vice versa, and the possibilities of modifying educational practices and administration to meet local needs.

IV. Education in the New Halfa district

This chapter is a quantitative assessment of the progress of education in the district. The subsequent chapter attempts to evaluate some qualitative aspects of local education, especially at the primary level.

A. INTRODUCTION - EDUCATIONAL FACILITIES

Prior to the establishment of the irrigation scheme in 1964, the area was relatively poorly provided with educational facilities, having only 30 primary schools¹, whereas today (October 1979) there are 91.

Besides the primary schools, other educational institutions that have grown up in the district include 16 intermediate schools, two secondary academic schools and a secondary agricultural school. Also there is an Egyptian mission school covering the three educational levels. Other institutions having an educational role are the In-Service Teacher Training Centre in New Halfa, the New Halfa Youth Centre, which provides a variety of vocational training courses and the Vocational Training Centre of the sugar refinery. There is an unknown number of Koranic schools in the district (the whole of Kassala province has 228 such institutions) but these are not under the control of the education authorities. An extensive programme of adult education is operated throughout the district by Adult Education Offices, and a small programme is also run by the White Fathers' Mission in New Halfa.

The district contains no secondary technical schools or teacher training colleges. Local students wishing to enter secondary technical education have to go in the first instance

1. Hoyle S., *The Khashm el Girba Agricultural Scheme: an Example of an Attempt to Settle Nomads*, in O'Keefe & Wisner (eds.), *op. cit.*, p. 127.

to Kassala town for the so-called "civil" courses, which correspond to the construction trades or to Gedaref, the second town of Kassala province, for courses in the mechanical trades. For primary teacher training, males go to the Institute in Kassala, but females must go further afield to Port Sudan, Wad Medani in Gezira province or Ed Damar north of Khartoum. Female intermediate teachers are trained in Omdurman and males in Omdurman, and in Bakht er Ruda, south of Khartoum. Until now all university facilities have been in Khartoum, but the newly opened University of Gezira, which is closer to New Halfa and is expected to concentrate on agricultural and rural studies, could also become a focus for local students in the future.

B. THE ADMINISTRATION OF EDUCATION AT THE DISTRICT LEVEL

A basic policy of the Sudanese authorities is the decentralisation of government activities. Below the central government are the provinces, divided into districts, which in turn are divided into area councils. The Provincial Commissioner controls District Commissioners, who in turn control Council Officers and these together form the framework of local administration. There is a parallel system of administration for education. Below the Ministry of Education in Khartoum come the Assistant Provincial Commissioners of Education with overall responsibility for the administration of education in each province. They in turn operate through district educational officials in dealing with the primary and intermediate schools, and directly with the institutions at the secondary level. The District Education Offices work directly with primary and intermediate schools. The Area Councils' role in education is limited to that of being, through their treasuries, the channel of payment for teachers' salaries.

This description provides the barest outline of the system of educational administration. The current situation in the New Halfa district will be examined in detail in a subsequent section.

C. PRIMARY EDUCATION

Primary education is administered from the District Education Office in New Halfa. Of the 83 primary schools operating in the 1977/78 academic year, 44 were for boys, 23 were co-educational and 16 were for girls. These schools were divided among the constituent area councils as shown in Table 7. Of the five

1. At present there are 20 students from New Halfa.

area councils, Halfa Rural and Saba'a t are rural in character, while Halfa town, Khashm el Girba and Almassnaa are more urbanised.

Table 7. Primary Schools - New Halfa District 1979/80

Area Councils	Boys' and co-educational schools	Girls' schools
Halfa Town	10	6
Halfa Rural	37	5
Saba'a t	16	1
Khashm el Girba	10	2
Almassnaa	2	2
Total	75	16

Source: District Education Office, New Halfa

Two sets of statistics for primary school enrolments during the 1977/78 school year are available, one for the beginning of the school year and one for May 1978 towards the end of the year. These are shown in Table 8. It is useful to have two sets of statistics in this way as it throws some light on the extent of drop-outs from primary education.

Table 8. New Halfa District - Primary School Enrolments 1977/78

Area Councils	Oct. 1977	Boys		Girls
		May 1978	Oct. 1977	May 1978
Halfa Town	2 291	2 319	1 843	1 840
Halfa Rural	5 593	5 587	4 206	4 136
Saba'a t	1 705	1 676	528	500
Khashm el Girba	1 415	1 407	967	975
Almassnaa	693	698	557	547
Total	11 697	11 687	8 101	7 998

Source: District Education Office, New Halfa.

Assuming that inward and outward migration of families to and from the district are roughly equal, and that girls and boys are equally affected, then it is clear from the table that drop-out during the school year is an insignificant problem, but that it affects girls more than boys. Among girls it is concentrated in the two most rural of the area councils. This lends some

support, though it should not be over-emphasized, to the common belief that rural parents are more likely to withdraw their daughters than their sons from school.

Female enrolments as a percentage of male enrolments are of the order of 70 - 80% in all areas except Saba'a t where they are only 30%. This reflects the more recent establishment of most schools in this remote and mainly nomadic area, with continuing disinterest in female education in the absence of separate girls' schools.

The total enrolment in the primary schools was as follows:

<u>1977/78</u>	<u>1978/79</u>	<u>1979/80</u>
20 000	20 760	22 729

This shows a considerable increase in the total enrolment. The percentage of enrolment to the age group 7 - 13 years in the year 1979/80 was 57 per cent compared to the average percentage of the Sudan of 37 per cent and of Kassala Province 29 per cent. This conceals local inequalities within the district as well as sexual inequality.

In 1976/77 there were 397 male and 110 female primary teachers in the district and in 1977/78 these totals increased to 413 and 176 respectively, reflecting the government policy of increasing the female component among primary teachers. The distribution of teachers is shown in Table 9.

Table 9. New Halfa District - Primary School Teachers 1977/78

Area Councils	Male	Female	Pupil/Teacher Ratio
Halfa Town	67	55	33.9
Halfa Rural	211	80	33.7
Saba'a t	72	6	28.6
Khashm el Girba	46	22	35.0
Almassnaa (sugar factory)	17	13	41.7
Total	413	176	33.6

Source: District Education Office, New Halfa.

There is a relatively higher concentration of female teachers in the urban areas of the district. The reason for this is that many female teachers are recently recruited and there is a policy of keeping the less experienced teachers in the more accessible schools, to facilitate their attendance at in-service training sessions.

At the Provincial Education Office in Kassala, it was stated that in 1977/78 there were 81 untrained primary teachers in New Halfa district and 33 vacant posts for primary teachers.

D. INTERMEDIATE EDUCATION

A separate office in New Halfa town administers the intermediate schools in the district. At present there are 16 such schools, 10 for boys and 6 for girls. There are no co-educational institutions at this level of the system. All of these schools were established by the government, except for one boys' and one girls' school in New Halfa which were established through local initiative and have now been taken over by the government, and the boys' and girls' schools in Almassnaa, which were established by the sugar refinery and continue to function as non-governmental schools. Boarding facilities are available in 5 boys' schools and 3 girls' schools. Two of the schools are situated in Khashm el Girba, two at Almassnaa and the rest in or near New Halfa town. The remoter parts of the district, where the expansion of primary education is a recent development, do not yet have enough qualified students to justify the erection of an intermediate school, though it is expected that such a step will be justifiable in 2 or 3 years in Saba'a t.

Among the boys' schools, 5 are two stream, which with classes of about 50 for the three years implies an enrolment of some 300 pupils, while the other 3 are one stream with some 150 pupils each. There is a three stream girls' school in New Halfa town, which thus has some 450 pupils enrolled and the other 4 girls' schools are all one stream. However, two of them are only recently established and as yet have only the first two classes of the three year cycle.

In the 1979/80 school year, there were 2,329 males and 1,386 females enrolled in intermediate schools. The number of boarders was 1,346.

According to the Provincial Education Office there are 144 posts for intermediate teachers in the district of which 23 were vacant in 1977/78. Of the 121 teachers employed, only 58 were trained. In theory men can teach in girls' schools and women can teach in boys' schools, but in practice only the former situation appears to operate. In the three larger girls' schools only 18 out of 33 teaching posts were filled by females. Including the other two recently established schools for girls, there are 27 female teachers in the district.

E. SECONDARY EDUCATION

There are three secondary level educational institutions in the New Halfa district, all of them situated in New Halfa town. These are the boys' and girls' academic schools, and the agricultural school for boys.

The academic schools are administered from the Provincial Education Office in Kassala. The girls' school, which was foun-

ded in 1974, is basically a two stream school, though the current (1978/79) second year has an extra stream because of the unusually large number of graduates of the intermediate schools in 1977. Thus there were 108 pupils in the first year, 161 in the second, and 94 in the third, at the beginning of the 1978/79 academic year. At present all the 363 girls are day pupils but boarding facilities are in the process of being constructed. Currently, school buses are operated to bring in pupils from the nearby villages but it is claimed that this does not work very well and as girls from the remoter parts of the district qualify for secondary education, the journey times will be too long to make daily bussing feasible. The school has a male principal and only 3 of its 17 teachers are female. Four male and one female teachers are Egyptian and the rest are Sudanese, 8 of whom are untrained, though all the teachers are university graduates. There are at present no vacant teaching posts. In the 1977/78 final examination, 53 out of the 84 candidates were successful. There were 63 passes in English but only 37 in mathematics, while 30 out of the 53 who took Science were successful.

The boys' academic school has 564 pupils of whom 272 are boarders (October 1978). It is a three stream school but like the girls' school, there is an extra stream in the current second year. The teaching staff include 22 Sudanese and 5 Egyptians, with two posts vacant for teachers of English and French. Of the Sudanese teachers, only 6 have teaching diplomas. In the final examination for 1977/78, there were 170 candidates of whom 118 were successful. There were 130 passes in general mathematics and 131 in English language. In Science, which is an optional subject, 93 out of 135 candidates were successful. The staff of the school also operate a "night school" for four hours daily. This is for intermediate school leavers who failed to enter secondary education and may now be working. Currently, there are some 300 pupils in six classes of this "school".

The agricultural secondary school is one of only 3 such institutions in the Sudan. As such it is an institution of national significance and is administered directly by the Ministry of Education in Khartoum. Only a few pupils are local boys. The school runs two streams and provides a four year course. Since total enrolment is 480, the average class size is 60, though for practical subjects classes are split into two groups. Now 50 of the pupils are day boys, but previously all were boarders. Apart from the principal there are 35 teachers, of whom 16 are Egyptian. Only 3 out of 8 posts for field demonstrators are filled by qualified personnel, who find more attractive opportunities elsewhere. Skilled labourers are being used instead. Similarly it is difficult to retain Sudanese teachers in agricultural subjects because they can find more challenging and probably better paid jobs in agricultural projects. The curriculum is divided roughly evenly between academic and agri-

cultural subjects, with the balance moving towards agriculture in the third and fourth years. The agricultural subjects include agronomy, horticulture, animal husbandry, food and milk processing, agricultural engineering, veterinary studies and plant protection. Academic subjects studied are Arabic, English, mathematics, science, and religion. The first graduates completed the course in 1975 and there are very few failures. Many graduates proceed to higher education, but have difficulty in finding jobs.

F. KORANIC EDUCATION

There is a separate structure of Koranic education, supervised by the former Ministry of Religious Affairs. In part this is an informal system with several stages. At the lowest level is the *khalwa* or local Koranic school, which takes in young children and gives them an initial literacy training via the medium of the Koran, after which the children may enter formal education through the complementary school. Alternatively they may proceed with informal religious education through more intensive study of the Koran, with the eventual possibility of entering one of the Islamic Institutes (see below). Up to this point there is both central and local government assistance to informal religious education, possibly with the appointment of an assistant to help run the institution. Beyond this local sheikhs may provide boarding facilities to a group of adult students for more advanced Koranic studies. Within Kassala province there were stated to be some 9,000 students receiving informal Koranic education, 20% of them female.

Most formal religious education begins with the 12 Institutes of Islamic Studies, one of which is located in Kassala, and which are equivalent to intermediate schools. These are boarding institutions and their students are primary school-leavers. Their studies include Geography, History, English and religious studies. At the age of 15 these students may proceed to the secondary religious school in Omdurman, to be trained as teachers of religion for the secular schools. Beyond this there is the Islamic University.

Although Koranic education is formally separate from the general education system run by the Ministry of Education, the two systems are linked together at several points, as mentioned above, so should not be considered in isolation. Also it is a mistake to think of Koranic education as being wholly religious in character. Thus the Koranic schools in the southern Sudan also provide courses in mathematics and an effort is being made to set up home economics courses for women under religious auspices. The Islamic Institutes were previously provided with workshops for vocational training but parental opposition to this type of training in a setting of basically religious education

led to some of them being closed.

It was not possible to obtain detailed statistics about Koranic education below the provincial level but from the foregoing description, it is clear that it is a significant component of education even at district level, in New Halfa as elsewhere.

G. OTHER EDUCATIONAL FACILITIES

Each year some four or five students from the New Halfa district go to the secondary vocational school at Gedaref to study trades associated with automobile engineering and machine shop work. Similarly, some 40 pupils from the district enter the secondary vocational school at Kassala each year to study bricklaying, carpentry or plumbing. The school principals believe that few of these pupils return to the district to seek employment.

The sugar refinery (Almassnaa) operates its own vocational training centre, as yet only to serve the company's needs for fitters of various kinds. There is a three year training course and about 30 primary school leavers who are the children of factory staff enter the centre each year. The first year of study includes general knowledge, technical drawing and technology. The second and third years involve specialization in one of four alternatives: fitting, diesel mechanics, electrical mechanics or automobile mechanics. Much of the training is done on the job in the refinery and except for the chief of the centre, all the instructors are themselves shift workers in the refinery. Potentially the resources of the centre could be used for vocational training for other groups, e.g. through evening classes but this would presuppose the availability of more instructors in lieu of the refinery staff, and also probably some upgrading of the existing facilities which are very cramped.

A further institution for vocational training situated in New Halfa town is the Youth Training Centre. Currently there are 23 such centres throughout the country established by the former Ministry of Youth and Sports with the assistance of Unicef and ILO. The centres are intended to provide vocational training for primary school-leavers or drop outs to enable them to practice a trade. To this end, after completing the course, trainees are provided with a nucleus of equipment and encouraged to group together to set up their own small businesses. Apart from a variety of trade training courses, the centres are also intended to foster activities for women, e.g. sewing and knitting, nutrition and simple furniture making, to establish a model kindergarten and to encourage communal cultural activities.

The New Halfa centre is recently established and as yet has only 13 trainees in building and 15 in plumbing. The metal-work course was due to begin in November 1978 and the next scheduled activities are domestic science and knitting courses

for girls and a carpentry course for boys. Currently the training staff include 3 full-time and one part-time instructor in each subject, plus part-time staff as needed. The instructors are secondary technical school graduates and the duration of the courses is 9 - 10 months. At present the centre is limited to day students drawn from the immediate vicinity, but there is an intention to establish boarding facilities to provide access for trainees from the remoter villages. Also, it is hoped to establish additional courses in fields such as poultry farming, television and car maintenance, and domestic science. As training is at present given in afternoon and evening courses, it is possible for the trainees to be in employment simultaneously. These centres are an interesting initiative in that they appear to be one of the few facilities devoted to helping in a practical way those who have failed to remain in the formal educational system.

Apart from the above institutions there are a number of activities in the fields of adult and non-formal education in the New Halfa district, but these will be discussed separately in a later section of the study.

As was mentioned in the introductory section of this chapter, all teacher-training students from the district must go to institutions outside the district, and it was not possible to obtain information on the number of such students. But it is believed to be significant because the Nubian community in particular has a tradition of working as teachers. There are apparently more local people qualified as teachers than can find places in local schools, which has two effects: either they teach elsewhere and try to be transferred back to the district, or they abandon teaching and take up other work locally.

H. CONCLUSION

Quantitatively, the primary level is by far the most important component of the educational system in the New Halfa district. For most of the children who enter the educational system it provides all the education they will ever receive. Accordingly, in the subsequent section we undertake a more detailed evaluation of the functioning of the primary level, in relation to the local patterns of economic and social life, and attempt to consider the potential role of local educational administration in this context.

Otherwise it may be said that, compared with most rural areas of the Sudan, the district is relatively well provided with educational facilities, though access to them is not equal for all parts of the district. Conversely, not all parts of the district are equally accessible to the administrative machinery of education,

even though primary schools at least now exist virtually everywhere. These considerations lead us also to the later discussion of the system of educational administration.

V. Some qualitative aspects of education in the New Halfa district

A. INTRODUCTION

Earlier sections of this report have brought out the variety of socio-economic situations and levels of development which exist within the district. On to this variety has been grafted a standard system of primary education. As part of the evaluation of educational progress in the district, it is of interest to consider the varying impact of primary education in those areas of the district with different levels and types of socio-economic development. (Since post-primary educational facilities are all concentrated in or close to the main urban centres, they are largely excluded from consideration in what follows.)

The most important comparison to be made is that between the central part of the district - New Halfa town, the sugar refinery complex and the Nubian villages - and the outlying and off-scheme areas, where the population is often still semi-nomadic. Approximately half of the primary schools in the district would fall within each group. This is not to imply that these two groups are homogeneous, but the differences within each group are much less than the differences between the two.

The discussion which follows is based on data drawn from some of the 24 schools visited in different parts of the district. The schools covered are not a systematic sample but are thought to be a representative cross-section. Therefore the conclusions of the discussion should be thought of as illustrative rather than comprehensive.

B. VARYING CHARACTERISTICS OF PRIMARY SCHOOLS

The schools discussed below have a number of common features: one stream, six classes, usually 7 staff. But beyond this they vary considerably. Table 10 brings out some of these differences.

The central area schools have significantly larger enrolments than those in the outlying areas, presumably because in the former

Table 10. Characteristics of Selected Primary Schools, 1978/79

Name of School	Total	I	II	III	Enrolments 1978/79			Leaving Exam Results 1977/78	
					IV	V	VI	Entered	Passed
<u>A. Central area schools</u>									
1. Village 26 Girls	292	65	50	36	40	45	56	42	29
2. Village 14 Co-ed.	358	70	67	57	49	55	60	61	32
3. Halfa West Girls	400	70	68	63	61	66	72	50	8
4. Halfa West Boys	299	55	46	45	46	55	52	54	37
5. Almassnaa Boys	390	69	65	57	56	74	69	68	43
6. Village 16 Co-ed.	357	69	63	64	60	46	55	40	37
<u>B. Outlying Area schools</u>									
7. El Gafala Co-ed.	232	37	41	37	32	35	50	30	29
8. Saba'a t Co-ed.	246	72	47	39	28	32	28	22	22
9. New Sofeyah Co-ed.	231	55	51	32	26	27	40	21	14
10. Um Rahwa Boys	204	52	35	29	25	36	27	17	14
11. Um Rahwa Girls	141	37	30	25	20	15	14	8	4
12. Um Reka Co-ed.	157	51	25	20	21	20	20	16	10
13. Rashaida Boys	125	41	33	14	9	14	14	10	7
14. El Preisi Co-ed.	267	71	61	48	35	27	25	15	9
15. Arida Shukriya Co-ed.	220	60	41	40	30	21	28	25	22

Source: Direct enquiries in schools.

group very few children remain unenrolled, whereas in the latter group rather few girls as yet enter school. Also the pattern of enrolment by grade varies between the two groups of schools. In the central group enrolments do not greatly vary between grades, though there is usually some decline in the middle grades, so that a graphical representation of enrolments in these schools would typically be a shallow U-shape, with repeaters presumably accounting for the right-hand side of the U. The outlying schools frequently have quite high enrolments in the first two grades, but thereafter enrolments decline, so that a graphical representation of their enrolments would be a downward sloping curve from left to right.

Several causes may contribute to these differences in enrolment patterns. There are usually fewer repeaters in the outlying schools, so that one factor tending to increase the size of the later grades is less significant. As education becomes more widely established in outlying areas, particularly for girls, so the size of successive cohorts entering the schools tends to increase - this is consistent with the downward sloping pattern of enrolments remarked on above. Perhaps still the most important influence on enrolment patterns in the outlying schools is drop out, e.g. in one school last year's fifth grade of 54 pupils became this year's sixth grade with only 28 pupils and there are only 6 repeaters in the fifth grade this year, implying that in this instance 20 students left the school after fifth grade at the end of last year. The semi-nomadic nature of many families' existence is one influence on drop out. When the family moves to a new area for seasonal pasture for their animals, or to harvest crops in another part of the irrigated area, the children are usually taken along too, and hence withdrawn from school. In some instances they may later return to the school, particularly if the family follows a regular migratory circuit. One of the schools visited, recognising that most of its pupils will disappear for part of the year, issues them with special certificates of attendance to facilitate their entry into schools in another district where they spend part of their migratory cycle.

Drop-out among girls is particularly frequent by the third or fourth grades because the parents consider them to be mature and marriageable, particularly if they were over age when they entered the school. Another recent factor encouraging drop-out is the trend for males to migrate abroad to work, even from among the nomads. In such instances a son may be withdrawn from school to take care of the family's animals. In any case, in families with several sons, it is often the case that at least one is kept back to help with the family's animals.

Another distinction between central and outlying schools is the difference in policy towards over-age enrolments. In the central schools, the pressure on facilities is such that over-age

entrants are generally not accepted, while because of the competition for education, families try to push children into school when they are still under age. Conversely, in the outlying schools, although it is hard to be precise because of the absence of birth certificates, it is clear from inspection of the classes that significant numbers of students, both boys and girls, are as much as five years over-age. Because the areas of these schools are outlying and relatively sparsely populated, pupils may have to travel as much as 10 kms. to come to school, the most common form of transport being donkeys which can carry two children easily. In these circumstances parents may well prefer not to let children undertake such journeys daily until they are somewhat over the normal entry age for primary school. By contrast the central schools normally have a smaller catchment area, and transport possibilities are also better.

The standard of physical facilities also varies between the central and outlying areas. With one exception (where a new school was in the process of being built), all the central area schools visited were in established, solidly-constructed buildings, in some instances located in fenced compounds with some effort made to develop a school garden. The facilities were overcrowded because of the pressure of expanding enrolments but classrooms were equipped at least with desks and benches. In contrast, the outlying schools mostly had four reasonably well built classrooms but the additional facilities required under the New Educational Policy to extend primary education to six years were frequently very temporary constructions, e.g. rough wood-frame structures with straw matting for walls and roof. These are not weatherproof and may need to be renewed completely each year. Moreover, as one teacher pointed out, it is difficult to display visual aids in such circumstances. Even in the established classrooms, floors were often only bare earth or sand and the furniture available was often quite inadequate, so that whole classes would be sitting on the ground, on mats if they were lucky. In no instance had a compound been made for any of the outlying schools visited, with the exception of one girls' school.

The conditions of service of teachers also vary significantly between the two groups of schools. In the central schools, if the teachers are not local they will be able to find rented accommodation in the vicinity of the school, though it is stated to be expensive in New Halfa town. Thus they are able to live with their families in reasonable comfort. Most of the outlying schools have no housing for teachers, though in theory it has to be provided as part of the school facilities. Cases were seen of up to 7 teachers sharing a mud hut, or in one instance a classroom converted into living quarters. In such cases teachers cannot bring their families to live with them and a common practice is to house the families in New Halfa town, to

which the teachers return as often as they can at weekends. As has been mentioned elsewhere, it is the practice to put new teachers in the central schools, which are most accessible to the in-service training facilities, and most easily visited by the inspectors. This is good pedagogical reasoning but it implies that more qualified teachers will have to endure more difficult living conditions and frequent separation from their families. Their morale may well be impaired in such circumstances, which may encourage them to resign or at least seek an early transfer and may also be a factor in the high wastage rate among recent recruits to teaching, when they see what their longer-term prospects are like.

Thus, in numerous respects, the outlying schools are at a disadvantage compared with the centrally located schools. Yet Table 10 shows that the former group have on average slightly better examination results. This is presumably explained by a combination of smaller classes, more experienced teachers and lower rates of repetition, together with the possibility that it is the brighter students that stay on in these more remote schools.

It is clear from the foregoing remarks that primary education is far from being a homogeneous entity in the New Halfa district. If this situation is repeated in other districts of the Sudan, or at least if situations vary between districts, it is then worth asking whether a single national or regional policy approach to primary education is adequate. This point, and some of its implications, are taken up again in the concluding section of the study.

C. THE EDUCATION OF GIRLS

Education for girls is only now beginning to be widely accepted in the outlying areas of the district. This can be seen from the enrolment figures shown in Table 11. For contrast, enrolments in one centrally-located co-educational school are also shown.

By comparing the above enrolment figures for males and females, the paucity of female enrolments in the outlying areas is clear, and contrasts notably with the situation in the centrally located school in Village 16. Moreover, in the remote Rashaida school, which theoretically is co-educational, there is not a single female pupil.

It is generally claimed by the tribal groups living in the outlying areas that they are not opposed to girls' education as such, though equally they do not appear to see much to be said for it, but that the absence of separate schools for girls, or at least of female teachers in the village co-educational schools, deters them from enrolling their daughters in a male-dominated

educational institution.

Table 11. Female and Male Enrolments in Selected Schools, 1978/79

School	Grade											
	I		II		III		IV		V		VI	
	F	M	F	M	F	M	F	M	F	M	F	M
Saba'a t	16	56	9	38	3	36	3	25	1	31	-	28
New Sofeyeh	18	37	23	28	7	25	8	18	4	23	8	32
Um Raka	23	28	1	24	1	19	-	21	-	20	-	20
El Preisi	12	59	6	55	8	40	5	30	2	25	-	25
Arida Shukriya	15	45	8	33	6	34	9	21	3	18	5	23
Village 16	33	36	28	35	29	35	33	27	24	22	26	29

Source: See Table 10.

Tribal representatives also expressed the view that the primary curriculum is insufficiently adapted to the rural environment of the nomadic or semi-nomadic tribespeople. More attention should be given to teaching about animal husbandry and cultivation for boys, and to home economics and poultry rearing for girls. In addition, some effort should be made to teach literacy and numeracy in the context of their rural surroundings.

If this position is an accurate reflection of widespread feelings among the tribes, it suggests that the general view that parents press for academically oriented education to further their children's prospects in modern society may not be universally applicable. It may be the case among the more settled and sophisticated urban and rural groups but among the tribes education is perhaps seen in terms of what it can do to improve their existing pattern of life, which is still traditional in important respects, rather than in terms of its potential to alter the tribal style of life. In this context it is worth noting that teachers in several outlying schools reported instances of students from these schools who had earlier succeeded in entering intermediate schools in New Halfa town but had quickly dropped out to seek jobs rather than pursue an academic secondary education. Among intermediate pupils of urban origin, drop out is apparently almost unknown.

Apart from the tribal antipathy towards men teaching girls, another influence tending to discourage the education of girls stems from the combined effects of late entry into education and early age of marriage for girls. Teachers in the outlying schools believe that girls habitually enter school at the age of 9 or 10, rather than the official entry age of 7. The point cannot be proven because of the lack of birth certificates, but the appearance of the students, particularly in comparison with the students

in central area schools where entry age is more carefully controlled, suggests that significantly over-age entry is widespread. Since it is common for tribal girls to marry from the age of 12 onwards, and even earlier in isolated cases, and they do not stay in school after marriage, the implication is that many girls cannot attend school for more than two or three years before being married.

It is clear that there are still many obstacles to female education in outlying schools and these are of a nature which are not likely to be resolved rapidly, resting as they do on the existing social attitudes. Perhaps the most useful step that could be taken would be to introduce more female teachers, in particular girls of local origin as they become qualified.

D. PROVISION OF BOARDING FACILITIES

Earlier in this study mention was made of the comparatively extensive use made of boarding facilities in the Sudanese educational system, even at primary level, which are free to parents. A few outlying primary schools in the New Halfa district have boarding students and the principals and teachers of several other schools expressed their wish to have or to reintroduce boarding facilities.

Several instances were found of schools drawing pupils from a 10 km. radius with the pupils commuting daily to school on donkeys, sometimes two to a donkey. Conversely, several principals wanted to provide boarding facilities for pupils living less than 5 kms. from the school on grounds that no local transport was available and that parents migrated for perhaps two months of the year, e.g. to do cotton harvesting, and took their children out of school for this period. Thus the parents favoured boarding education because it facilitated their migration and employment and also reduced their own expenses. Another principal agreed that this pattern of events took place but said that the distance of migration was only a few kilometres and the parents sent their children back to school each day by donkey.

Provision of boarding facilities in such circumstances would appear to be the most expensive solution and several alternatives should be closely investigated before it is adopted. One possibility is that during such migratory periods, children might be transferred to schools in the reception area to the extent that they are under-utilized. Another alternative would be to send one or two of the local teachers with the migrating families to operate a makeshift school in the area of temporary settlement. Since the periods of migration mentioned are comparatively short, such alternatives are thereby more feasible.

Another step which the community could consider, instead of providing boarding facilities, would be the provision of donkeys by self-help to poor families for their children's transport.

Boarding is a relatively more common phenomenon at the intermediate level (see Table 4). Catchment areas are normally larger at this level, e.g. a school in a village just outside New Halfa town was drawing its boarding pupils (about two-thirds of the total enrolment) from seven neighbouring villages up to 20 kms. away. As there are no bus services between the villages, boarding has become the practice. It is of interest to attempt to compare the costs of boarding and bussing of pupils. A recent study¹ provides the latest information on the comparative unit costs of day and boarding pupils. Unfortunately, Kassala was not one of the provinces covered, but the table below shows figures for the neighbouring Red Sea province, together with the average for the seven provinces investigated.

Table 12. Unit Costs of Boarding and Day Pupils (Sudanese Pounds) per year

	Day Students	Red Sea Province Boarding Students	Seven Provinces Day	Seven Provinces Boarding
Primary	22 817	57 013	27 210	51 279
Intermediate	49 643	178 286	59 643	138 131
Secondary	117 518	196 298	158 841	249 396

Source: Ministry of National Planning and Ministry of Education, op. cit., P. 7.

The annual costs of operating a bus carrying 50 students and undertaking two separate journeys daily to cater to two different groups of students, i.e. 100 per day, are as follows, assuming the cost of the bus to be Sud. Pounds 15,000 and its life ten years:

	Sud. Pounds
Cost of bus	1 500
Petrol	300
Driver	900
Spare parts and oil	300
Total	3 000

The cost per student carried per annum is therefore Sud. Pounds 30.

The saving in annual per student costs between boarding and bussing would therefore be Sud. Pounds 98.643 for the intermediate level in the Red Sea Province and Sud. Pounds 48.488 in the seven

1. Sudan Ministry of National Planning and Ministry of Education, *Survey of Educational Expenditure on Public Education in Selected Provinces, Khartoum, October, 1978.*

provinces. Assuming the bus is able to serve 100 students daily, total annual savings from operating a bus would be Sud. Pounds 9864.3. in the Red Sea and Sud. Pounds 4848.8 on average. A larger bus used to capacity would permit greater savings. There are additional potential benefits to the substitution of bussing for boarding - the buildings previously used for boarding could be used to extend classroom space and provide facilities such as craft rooms or laboratories at minimal extra cost, and the bus could further be used to facilitate out-of-school activities. In these ways the quality of education might be further improved. Also the extra time spent in school by the groups arriving first in the morning or leaving last in the afternoon could be devoted to extra-curricular activities or private study periods. Moreover the reduced administrative burden, particularly on the principal, would permit greater concentration on pedagogical matters.

These findings suggest that the replacement of boarding by bussing is potentially of interest as a source of savings at the intermediate level. It is much less likely to be of interest at the primary level, particularly since in the New Halfa district the number of boarders per school is too small to keep a bus fully employed. At the secondary level, the proposal sounds very interesting from a cost point of view, but the even more extensive catchment areas at this level make it unlikely that the bus would be able to serve two loads of pupils daily. However, even with only one daily load there is still some potential for cost saving through the operation of a bus at this level.

On the basis of these findings the issue of boarding and bussing deserves to be investigated on a school by school basis throughout the Sudan. The adverse effects of the rainy season on the roads need not be a major problem as its main impact is during the long vacation. Similarly, it is to be hoped that current petrol shortages will not be a continuing problem.

The administration of the school system, like administration in general, would also greatly benefit from an improvement in the surface of local roads, which could allow administrative personnel, pupils and teachers to use bicycles or fractional horsepower mopeds. The need for boarding of pupils or overnight lodging of inspectors and officials would be reduced. Technically, the problem would seem to lie in the lack of stone or gravel with which to prepare firm road surfaces. A substantial improvement in the local road system would perhaps involve high costs in terms of transporting materials and mobilising local labour, but may nevertheless be worth investigating.

E. CONCLUSION

Enough has been said in the preceding paragraphs to show that the primary school in New Halfa district is far from being a homo-

geneous entity. The question then arises whether all primary schools should be treated homogeneously by the local administration. At present they are not in the sense that apparently because of transport difficulties, the local education officials seldom manage to visit many of the outlying schools. These schools are in this respect neglected and the principal is left very much to his own devices.

There is a long-standing debate in educational circles as to whether all students should be treated equally, irrespective of their background and circumstances. In a nationally organised system such as that of the Sudan, even with the degree of decentralisation which exists, there are strong forces towards standardisation - a single national curriculum, nationally prescribed textbooks, a common system of teacher training and a career service for teachers which entails the possibility of their being posted to any part of the country. Yet can it be said that the educational needs of a child from a nomadic or only recently settled community, whose elders have no previous exposure to formal education, are the same as those of a child of similar age in a large city such as Khartoum, or even in one of the Nubian villages of New Halfa, where several generations have already received formal schooling and the ideas of upward and occupational mobility are already implanted?

It is often claimed that education is a great equalising force, that access to education is an avenue of escape from disadvantaged circumstances. Hence it is supposed to follow that every child is entitled to the same education. But if children are coming to this education from widely varying backgrounds, will a common education have equal impact on them? *Prima facie* it seems unlikely. The question then is what local variants of education are needed to give children from varying backgrounds an equal opportunity for greater self-realisation, within their own section of society in the first instance and perhaps subsequently outside it.

In raising this issue it is important not to carry it too far. There is undoubtedly a common core of education which is essential, irrespective of a child's background, e.g. basic linguistic and mathematical skills and exposure to the concept of national identity. It is only after due attention has been paid to this that consideration might be given to particular local educational needs, though conceivably such local needs might influence the approach to instilling the basic skills. Furthermore, in a country with limited resources, the logistical consequences of local variations in education must be very carefully borne in mind. How far has the country the human and financial resources to develop a multiplicity of educational materials for local use?

It is therefore the case that one of the main tasks of the district administration is to take measures to compensate for

the particular disadvantages under which education in the outlying areas of the district is conducted. This is a matter of improving the training of principals and certain teachers, ensuring regular inspection of the schools and taking steps to encourage the enrolment of girl pupils.

In the Sudanese context, this question might be posed in the following way. Apart from the basic core subject, would it be useful in primary education to have examinable optional subjects, developed in relation to a range of local socio-economic environments? This could be a step towards making primary education not simply the passport to intermediate education, but also a vocationally-inspired terminal education in its own right.

From the beginning of the academic year 1979-80, it is intended that the provision for rural education in the primary curriculum should be rigorously applied, with the subjects being made examinable. In the 4th grade, boys would spend two periods on nature study and carpentry, in particular making wood cages to protect trees. The four periods of study in the 5th grade would include horticulture, carpentry and an introduction to fitting through the making of simple agricultural equipment. The focus of 6th grade studies (again 4 periods weekly) would be poultry-keeping, including the making of appropriate simple equipment in both wood and metal. For girls the equivalent periods would be spent in home economics and domestic science studies.

VI. Adult education

Within the New Halfa district there is an office of adult education in the town of New Halfa with a total of ten staff, one of whom operates from Khashm el Girba town. In addition, the Agricultural Corporation and the sugar refinery each have their own adult education officers catering to the needs of the tenants of the irrigation scheme and of the sugar workers respectively.

The office in New Halfa has a Director, an Assistant Director, two Adult Education Officers and six Supervisors. The Supervisors are all female and the other officials all male.

The basic activity is functional literacy classes. These are varied to meet the different needs of four separate categories of trainees - industrial workers, agricultural workers, service workers and women. For each category there is a standard programme throughout the district. The main emphasis is on classes for women since they are considered to be the group which has had the least educational opportunities in the past. The numbers of trainees are shown in Table 13.

In the industrial, agricultural and services categories, the trainees are only men, except in the government personnel group where women trainees may also be found. Classes meet five days a week, the women's category having two lectures each afternoon and the others one lecture each evening. The lectures are given by primary school teachers, usually in the local school, for which they are paid 10 Sudanese pounds per month over and above their regular salary. A course is supposed to be completed in 6 months, after which an examination can be taken to demonstrate proficiency. By law the age range of trainees is from 9 to 45 but the majority are adults. The trainees are supposed to buy their own books at reduced prices.

An additional activity of the adult education staff is to give lectures on public health.

The adult education office of the Agricultural Corporation also runs 30 literacy classes, operating in 17 of the villages on the scheme, mainly with the more settled elements of the population. However, attendance is not considered satisfactory,

Table 13. Functional Literacy Classes, 1977/78

	Women		Industry		Agriculture		Services	
	Classes	Parti- cipants	Classes	Parti- cipants	Classes	Parti- cipants	Classes	Parti- cipants
Halfa Town	13	412	1	32	-	-	7	232
Halfa Rural	18	275	-	-	9	296	-	-
Khashm el Girba	8	242	-	-	2	64	5	150
Saba'a t	5	152	-	-	6	160	-	-
Government personnel	3	96	3	60	-	-	6	172
Total	47	1 177	4	92	17	520	18	554

Source: New Halfa Adult Education Office.

because, it is felt, people prefer to attend to their work. This office also runs a leadership programme for men, which is provided for 5 or 6 groups of 30 participants each year. Other activities include community development programmes in the villages, training of kindergarten teachers and encouragement of pre-school education and cultural and social programmes.

Another source of adult education is the White Fathers' Mission in New Halfa Town, which runs two Arabic and two English literacy classes in the evenings, together with classes in domestic science and typing in both languages. There are 130 literacy students, 25 in domestic science and 20 in typing. A class in elementary accounting methods is to begin shortly and the mission also runs a kindergarten. Students have to pay a fee of 6 Sudanese Pounds per annum and also buy their own books.

Adult education is quite widespread throughout the district but the extent of its impact is questionable as there is a high drop-out from classes, though figures are not available. Moreover, adult education was the component of the provincial education budget for which expenditure increased least during the last two years.

VII. The structure of educational administration

A. INTRODUCTION

Educational administration covers a wide range of subjects at different levels of significance, from the national to the local and individual. A decision to change the number of years of schooling or the structure of education is of national significance, while arrangements to finance the repainting of a school's premises or to assess a school principal's performance are of local or individual significance. But they all have their impact on what goes on in the classroom which is the field of action of the educational system. To cope with this range of situations, a decentralised structure of educational administration has been developed in the Sudan, from the central Ministry of Education in Khartoum, through the Regional, Provincial and District levels down to the individual educational institutions. Some of the larger and more sophisticated educational institutions, such as those at the secondary and higher levels, are not placed at the bottom of this administrative pyramid but are linked directly to the provincial or even national level. In the following paragraphs we discuss the roles of the different levels of educational administration in guiding educational performance at the local level. However, the Region level is excluded from consideration since this concerns only the southern provinces of the Sudan and so is not relevant to a study dealing with a district in the north of the country, such as New Halfa.

B. THE MINISTRY OF EDUCATION

Following the development of the policy of administrative decentralisation under the principle of people's local self-government, the role of the Ministry of Education in Khartoum has changed. In a sense it can be said to have become more limited, since many responsibilities have been devolved to lower levels of the administrative structure, but it is more exact to say that the Minis-

```

graph TD
    ME[Minister of Education] --> NCH[National Council for Higher Education]
    ME --> NCGE[National Council for General Education]
    ME --> US[Under-Secretary]
    ME --> EBP[Executive Bureau  
International and Public Affairs]
    ME --> NCLFE[National Council for Literacy and Functional Education]
    
    US --> CB[Co-ordination with People's Local Government Councils]
    US --> EB[Examinations Board]
    
    EB --> EA[Educational Administration]
    EB --> EAC[Educational Advisory Council]
    EB --> PS[Primary Schools]
    EB --> IS[Intermediate Schools]
    EB --> SS[Secondary Schools]
    EB --> AE[Adult Education]
    EB --> TE[Technical Education]
    EB --> SP[Strategy and Planning]
    
    EA --> GM1[General Manager]
    GM1 --> C[Curriculum]
    GM1 --> T[Training]
    GM1 --> G[Guidance]
    C --> AM1[Administrative Manager]
    T --> AM2[Administrative Manager]
    G --> AM3[Administrative Manager]
    
    PS --> AM4[Administrative Manager]
    IS --> AM5[Administrative Manager]
    SS --> AM6[Administrative Manager]
    AE --> AM7[Administrative Manager]
    TE --> AM8[Administrative Manager]
    
    SP --> GM2[General Manager]
    GM2 --> AM9[Administrative Manager]
    AM9 --> FAA[Financial and Administrative Affairs]
    FAA --> GM3[General Manager]
    GM3 --> AM10[Administrative Manager]
    
    US --> S[Secretary]
  
```

try's role has become more concentrated, as it focuses specifically on those subjects which have a national dimension which require decisions at the national level. Now the Ministry concentrates on providing the policy-making strategies and planning for the continuing development of the educational system. In addition, it co-ordinates the educational activities of other government departments, e.g. Religious Affairs, Youth and Sports, Social Affairs. The Ministry is directly concerned with teacher training and secondary vocational education and is the originating agency in activities such as curriculum development. There is a National Council to oversee higher education. The Ministry of Education is responsible for all personnel matters concerning technical teachers and promotions and transfers of secondary teachers. However, the appointment of secondary teachers is undertaken by the Selection Committee of the Ministry of Public Service and Administrative Reform. All personnel matters concerning intermediate and primary teachers are now handled by the provincial educational authorities.

As a result of the progressive decentralisation of educational administration, the Assistant Provincial Commissioner for Education has taken over certain of the functions previously exercised by the National Ministry within the province. He continues to report to the Ministry with regard to others.

C. THE PROVINCIAL EDUCATIONAL ADMINISTRATION

The people's executive council in each province acts as the educational authority for the area. The council decides educational policy within the national strategy and carries out the national educational plans within the province. It is also responsible for educational financing and the operation and inspection of local educational institutions.

The operational arm of the council with respect to education is the provincial educational administration. The chief official concerned with education is the assistant provincial commissioner for education, who controls other officials of the Ministry of Education working within the province.

Below this, come the district education offices which work under the direction of the provincial officials in administering primary and intermediate education.

The current administrative structure and staffing pattern of the Kassala provincial educational administration are shown in Figures 3 and 4, and the proposed revision of this structure in Figure 5.

Approximately 60 people are on the established strength of the provincial educational administration, though in November 1978 there were 6 posts vacant. The administration is divided into two branches, the administrative and the technical. The tech-

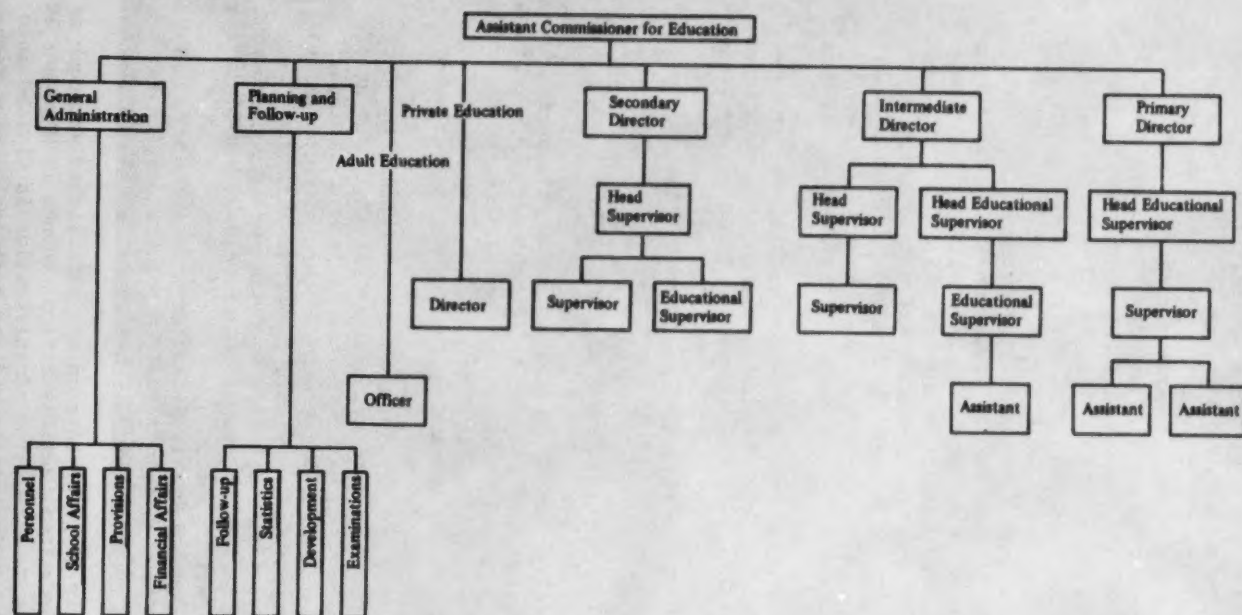


FIGURE 3. Kassala: administrative structure of provincial educational administration.

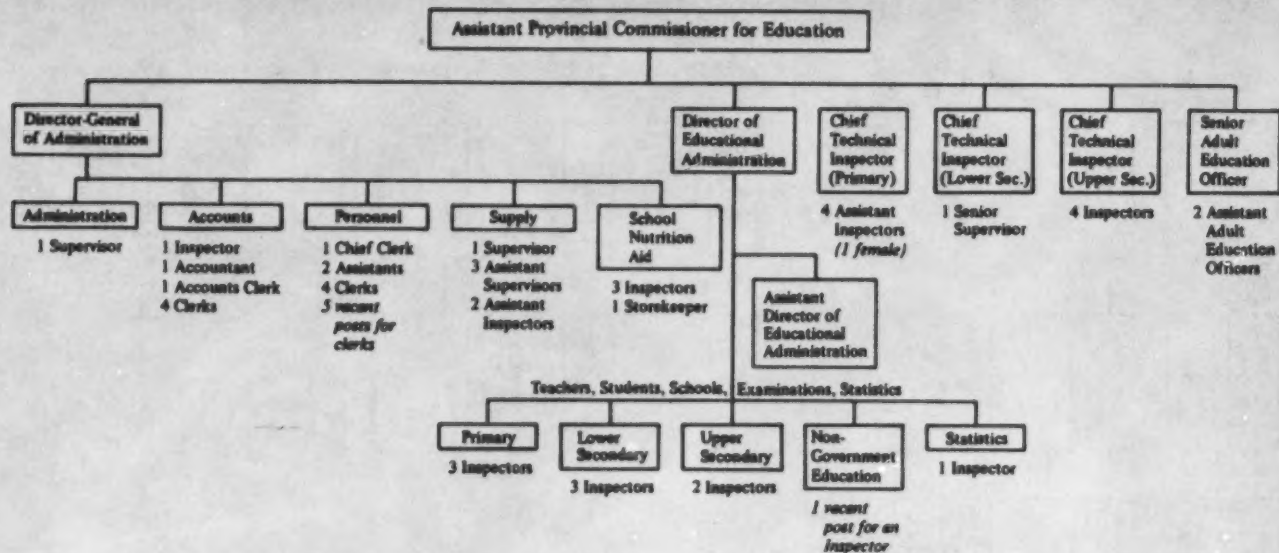


FIGURE 4. Kassala: staffing pattern of provincial educational administration.

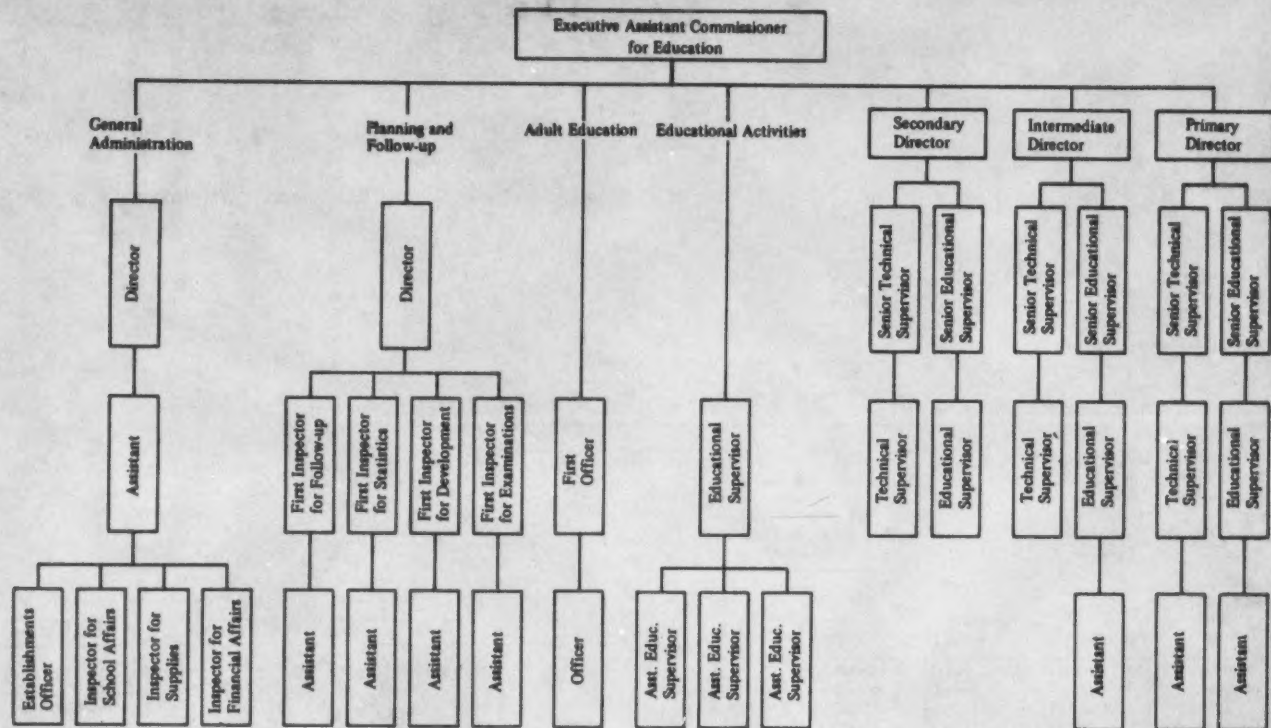


FIGURE 5. The Sudan: proposed organizational structure for education in the provinces.

nical branch in turn consists of two sections, technical guidance and educational administration. Each of these three groups is discussed below.

(i) Educational Administration

The main task of this section is the organisation of progress reporting and record-keeping concerning schools, students and teachers, including the preparation of provincial education statistics. Another important function is the administration of annual examinations, including organising the marking of papers for the intermediate and primary levels. The section is concerned with student transfers and promotions and also with keeping the records of service of teachers and ensuring that they receive appropriate annual salary increments. Where necessary, it is also responsible for disciplinary action against teachers. Every school principal has to submit a monthly report to the provincial education office detailing enrolments and attendance of pupils, teachers and their attendance, employment of other staff, school nutrition and health situations, information on school activities and observations and suggestions on the running of the school. The form used for this purpose is shown in the Annexes to this study. In addition, the district offices have to submit quarterly returns listing enrolments by class and employment of teachers and other staff. There is no special form for this purpose. On the basis of these returns and reports the inspector responsible for statistics has to make an annual report to the Statistics Section of the Ministry in Khartoum. In addition school principals make an annual statistical return to the Statistical Section of the Ministry of Education in Khartoum. Two files are prepared for each teacher, a confidential one dealing with his performance reports and the other open and concerned with administrative details such as transfers and promotions. A copy of the confidential file is also kept in Khartoum. The section has devised very detailed personal record forms for teachers which have now been accepted by the Ministry for use nationally and in addition there is a "school map" form providing comprehensive information on each school, but this is not yet in use.

It is also the intention to establish student record cards but the financial means to do this are not yet available.

(ii) Technical Guidance

This section of the administration is concerned with the inspection of teachers. However, at the primary and intermediate levels, the actual inspection work is carried out from the district offices. The Chief Inspector at these two levels and their staffs in the Kassala provincial education office are thus concerned principally with administering the transfers and pro-

motions of teachers and their resignation and retirements. Promotions are now decided at the province level for the intermediate teachers and for primary teachers. The interval between promotions is at least 3 years. Inter-provincial transfers are decided in Khartoum. However, decisions on transfers of teachers between schools within the province are taken at meetings of local inspectors several times a year. Applications for resignation or retirement also need final approval from Khartoum, normally with at least two months' notice. Otherwise the Chief Technical Inspectors at these two levels are mainly concerned with planning and supervising the work of their district inspectors and summarising the reports on teachers for the Board Meetings in Khartoum.

The Chief Inspector of secondary education and his staff are in a somewhat different position as they themselves directly inspect all the relevant institutions in the province and in theory also on the neighbouring Red Sea province. They cover both the academic schools and the teachers of academic subjects in the vocational schools. They should be graduates with an education diploma and at least 15 years experience as a teacher. At this level each inspector is responsible for a particular subject and the four inspectors resident in Kassala cover English, Arabic, geography and history. There is an inspector for mathematics and science based in Port Sudan but he has never been able to visit the institutions in Kassala province, just as the Kassala inspectors have never visited Port Sudan. The distance between the two provincial capitals is over 500 kms. and communications are poor. It would be simpler logistically to send inspectors from Khartoum if they cannot be based in the province. The inspectors travel as a team to the schools, using public transport and endeavour to visit every school twice a year, though in practice it does not appear that schools in New Halfa have been visited more often than once a year. In larger schools the inspection visit may last several days. The inspectors make reports on the teachers, but at this level more weight is given to the principal's reports in deciding promotions because of the many extra-curricular duties of secondary teachers which the inspectors do not cover. In addition, the inspectors have to assess the running of the school in its administrative aspects. The Chief Inspector goes annually to Khartoum for the Advisory Board meeting on promotions and transfers of teachers. It is notable that the inspectors, who are former teachers, receive no comprehensive training for their work as inspectors.

The Senior Adult Education Officer is responsible for planning and administering the provincial programme of adult education, working through his local offices at the district level. The main activity is the provision of literacy classes, particularly for women, which are taught by local teachers in the afternoons and evenings.

(iii) General Administration

The accounts section is in charge of all financial matters. It controls all revenue and expenditure and receives the approved budget. Hitherto revenue has consisted of the budget, plus small amounts of money received from the Ministry of Education to top up the income produced through World Food Programme aid (see below).

The budget procedure is initiated in response to Ministry of Finance directives by the provincial education office which prepares the draft for the agreement of the Provincial Council. It is then sent to the Ministry of Finance in Khartoum, where it is supported by the Provincial Commissioner and other local officials. The Ministry of Finance then decides on the amount of the approved budget, which is returned to the provincial office. The Ministry of Education in Khartoum is no longer involved in this procedure. For the last two years the approved budget has been split into district allocations which are then handed over to the Assistant District Commissioners to administer. Thus they now deal directly with the local branch of the Ministry of Public Works for expenditures on school maintenance. Similarly the district and council treasuries are responsible for the payment of teachers' salaries. Schools keep their own account books, recording their requests for funds from the local treasury and their payments of any income to the treasury. The auditing of these books is carried out by the provincial branch of the Auditor-General's Department. They try to visit each school every two to three years to conduct an audit.

The personnel section is concerned particularly with non-teaching staff. This includes both administrative staff and all the employees in schools, e.g. cooks and caretakers. The staff actions covered include vacancies, appointments, increments, resignations, retirements and pensions, as well as disciplinary measures.

The supply section is responsible for ensuring that schools receive the necessary books, stationery, equipment and furnishing, for boarding facilities and offices as well as classrooms. At the beginning of each school year all schools are sent circulars to find out their needs for books and materials in the following school year. The responses are collated into a provincial

1. However, this procedure is now about to change, if it has not already done so. In future, it is intended that the people's council at the provincial level should take over revenue-raising responsibilities and also be charged with deciding budgetary allocations to the different fields of government activity within the province, including education. The Ministry of National Planning would therefore appear to have a minimal role in determining the provincial education budget.

request which is sent to Khartoum for approval and supply to Kassala in bulk. From Kassala the supplies received are then distributed to the district offices, who in turn send them to the schools. For the 1978/79 school year provincial expenditure on books and materials is estimated to be of the order of 500,000 Sudanese Pounds. The section arranges for furniture for new schools to be made locally on a tender basis, together with replacement furniture.

The School Nutrition Aid scheme administers World Food Programme aid to schools within the province. Under this scheme, which has so far been in operation for 7 years, the food supplied comes from Port Sudan to Kassala for storage. Part of the food is supplied free to day schools and part is supplied to boarding schools against payment. The amounts received from boarding schools attract an additional 200% grant from the Ministry of Education, all of which goes to the local treasury for expenditure on projects such as school maintenance, subject to Ministry approval.

(iv) Concluding observation

The above notes describe the roles of the various components of the existing structure of the provincial educational administration. The proposed new structure shown in Figure 5 is more straightforward but will also be rather larger. Undoubtedly this enlargement will also lead to an increase of reporting between the levels and it must be open to question whether this is going to improve the local efficiency of educational administration, particularly as it concerns the performance of individual schools.

D. EDUCATIONAL ADMINISTRATION AT THE DISTRICT LEVEL

Primary and intermediate schools are administered in the first instance from district education offices. It is the officials from these offices who, at least in theory, have the most regular contact with the schools.

In New Halfa town there is an Education Office which deals with primary education, throughout the district, and a group of inspectors for intermediate education, who have their office in one of the town's intermediate schools.

(i) Primary

The establishment of New Halfa Education Office as it was in October 1978 is shown in Figure 6. The first point to note is the apparent absence of any formal links between the officials responsible for the different levels of education within the district. They even report in the first instance to different officials at the provincial level. Moreover local financial

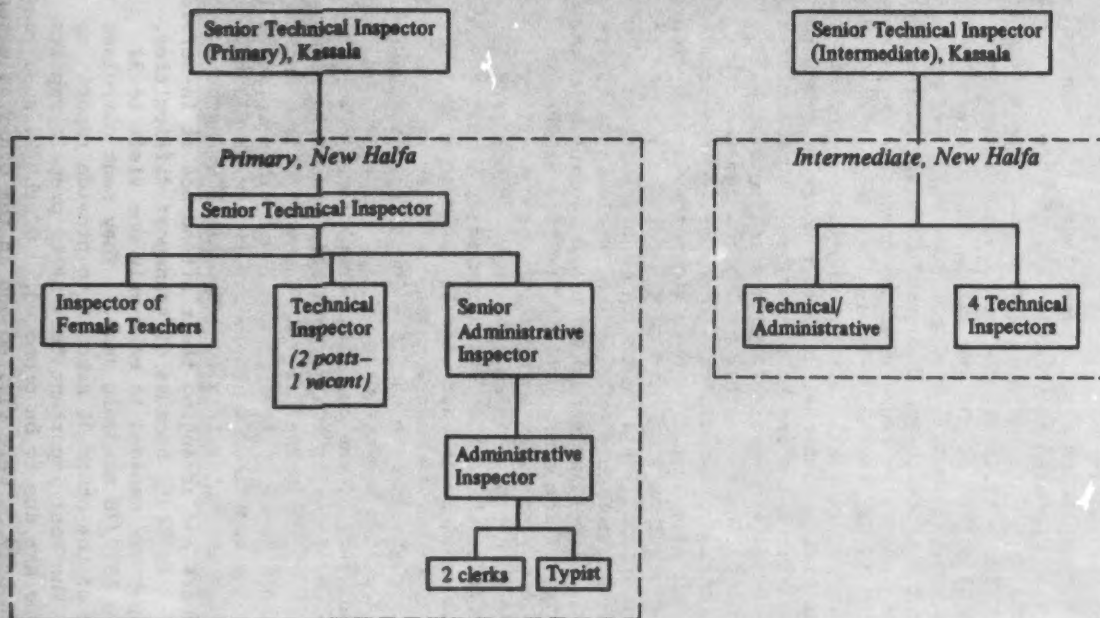


FIGURE 6. New Halfa: the district educational administration.

disbursements for education are handled by a third group of officials who are not part of the educational administration at all. These features imply a considerable degree of subordination of the district officials to the provincial level. In practice it was observed that working relationships between these different groups of district officials appeared to be close, but if this were not the case the lack of formal links at the district level could considerably impair the efficacy of local educational administration through every detail affecting the two levels of education having to be referred to the provincial level for approval.

The technical inspectors are concerned with all matters pertaining to teachers and so correspond to the inspectorate as normally understood. In particular, they are responsible for assessing the performance of teachers, and helping them to improve, e.g. through demonstration lessons. Their reports on teachers should be the basis for decisions on promotions. One anachronism in New Halfa was the existence of a separate inspector, a lady, dealing with female teachers, so that by implication the other inspectors are concerned only with male teachers. This implies that where schools have teachers of both sexes they are covered by two inspectors who can thus each have only a partial view of the functioning of the school. Also where there are adjacent boys and girls schools, staffed only by male and female teachers respectively, there will be two inspectors making journeys to the same area. In view of the transport difficulties alluded to elsewhere, this seems a somewhat prodigal way of operating.

The male inspectors have to cover 44 boys schools and 23 co-educational schools, while the female inspector covers the same 23 co-educational schools, and also 16 girls schools.¹ In theory there should be one technical inspector to every 25 schools. Technical inspectors should have had 15 - 20 years of teaching experience as well as teacher-training.

The principal duty of the technical inspectors is to make two visits per annum of one or two days to each school to make reports on the work of the principal and teachers. (A complete primary school should have a principal and seven other teachers.) Additional visits are sometimes scheduled to review candidates for promotion. The inspector is also responsible for processing transfers of teachers and arranging their attendance at in-service training courses. In fact, because of transport difficulties, the technical inspectors managed to make only one visit to 32 schools during the 1977/78 academic year. They sent circulars to the principals of the other 35 schools to provide reports on their teachers. The most important task is to prepare reports on the teachers who are due to be promoted. Of the 74 such candidates in 1977/78 only 30 were visited and in the other 44 cases reliance was placed on the principal's report. The inspectors go to the provincial education office with all the reports to update the teachers' files there and to forward their recommendations for

1. In the year 1979/80 the boys' schools were 22, co-educational schools were 53 and girls' schools were 16.

promotion to Khartoum. Also after inspecting each school, the inspector discusses his findings with the staff and reports them in the school's record book.

The assistant inspector of female teachers claimed to have visited all the 39 schools she covers at least twice during the 1977/78 school year. She obtained lifts in other people's transport to carry out her work, though it should be noted that the schools covered are mostly the nearer and more accessible ones. Also, since many female teachers are relatively new, few are yet eligible for promotion so that their inspection can perhaps be less exhaustive.

The variety of duties of the administrative inspectors, detailed below, makes them equivalent to supervisors of schools. However, the qualifications required to become an administrative inspector are the same as those for a technical inspector. Since the administrative inspectors are also supposed to be responsible for 25 schools each, there is evidently understaffing for this role in New Halfa.

The administrative inspectors between them visited 60 out of the 83 primary schools during the 1977/78 school year. Their duties are more varied. One special task is to make surveys for the opening of new schools. A community wanting a school must first make its request to the provincial education office, which then directs the inspector to investigate the request. He has to make a map of the locality, estimate the local population and compile lists of eligible boys and girls by age. Information has also to be supplied on local water supplies, transport and medical services, and development projects, and on the possibility of population movement making the school redundant. He must also estimate whether boarding facilities will be needed and the local capacity to contribute to costs and initiate building activity. In the light of these findings the provincial office decides whether to support the opening of the school. Apart from this, the administrative inspectors are responsible for the quarterly compilation of statistics and also for investigating any prolonged absences of teachers, pupils or other school employees. The supply of food to schools with boarding facilities is also organised by the administrative inspectors who invite tenders, select suppliers and arrange payment through the local council. The inspector is also a link between the schools and the provincial education office in the ordering and distribution of books and materials. The supplies come from Kassala to the district office for distribution to the schools. In addition, principals receive a small sum of money for the purchase of local material¹. Administrative inspectors also act as a link between Parents' Councils

1. In 1977/78 the amount spent under this head in the primary schools in the district was 1,490 Sudanese Pounds.

and the educational administration, though in this they take a passive rather than an active role, responding to Council requests rather than encouraging their activity. The inspector also acts as the channel for the organisation of maintenance of school buildings and equipment. He receives funds from the provincial office for this purpose and allocates them to principals in the light of their needs as approved by the provincial office. The principals are then responsible for carrying out the work.

Both the technical and the administrative inspectors attend an annual meeting at the provincial education office, where all the information from the schools is collated, and a report on the progress of the district is prepared.

(ii) Intermediate

At the intermediate level the inspection team in New Halfa consists of five technical inspectors, one of whom is also an administrative inspector, to cover the 13 intermediate schools in the district. Two inspectors cover Arabic, history and geography, one covers English and history, one covers geography, mathematics and science, and the administrative inspector also covers English, mathematics and science. The New Halfa district would appear to be over-staffed in this respect.

The inspectors are supposed to be visiting the schools all the time, so that a particular school might be visited more than ten times in a year by different inspectors. During his visit the inspector endeavours to observe each teacher of the subjects he inspects for two periods in order to assess and advise. He should pay special attention to newly appointed and untrained teachers and may give demonstration lessons to help them. The inspectors also run refresher courses occasionally, particularly for those teachers who are principals or are in line to become principals. Without doubt the inspectors could do more to train intermediate teachers, and it is appropriate that the use of local in-service training facilities should be extended to this group, particularly for refresher courses. Especially in those schools with boarding facilities, the principal's role is mainly an administrative one.

Although the inspectors have no transport of their own, this should not be a significant handicap to their mobility since all the lower secondary schools are reasonably accessible with public transport.

The administrative inspector also has to check the state of the buildings and the availability of materials, the presence of teachers and pupils and the functioning of boarding facilities.

At this level the parents' council has an important role to play in the functioning of the school. They raise money and may provide labour to assist with the provision of additions to the school facilities. The school budget, which comes partly from

the provincial education office and partly from the parents' council (held in a separate account by the principal), is used for maintenance, transport and school gardens and other activities.

As at the other levels of the educational system, another important task of the inspectors is to prepare reports on those teachers due for promotions or transfers, for submission to Kassala and eventually Khartoum.

(iii) Accounts

The accounting work for educational expenditure at the district level including both primary and intermediate teachers' salaries, is carried out by the council treasuries as part of their work of administering all council expenditure. In the New Halfa district the Khashm el Girba council has its own offices in Khashm el Girba town, from which the educational expenditures for the schools within the council's area are processed. The other four councils all have their offices together in New Halfa town, so that their educational expenditures are all handled by the New Halfa treasury. Three of the accounting staff there deal with educational payments for the four councils. For teachers' salaries alone there is an estimated total of some 47,000 Sudanese Pounds per month.

E. CONCLUSION

The administration of education in the Sudan follows essentially a pyramidal structure, with the Ministry at the top reaching down through the provincial level to the district education offices and the schools. Primary and intermediate schools are directly under supervision of the district administration while the academic secondary schools are administered by the provincial offices. Technical institutes are directly linked to the ministries' headquarters. Moreover, the important dimension of educational financing is also largely removed from the control of the Ministry of Education, leaving the Ministry to focus more closely on the professional dimensions of education. From the level of the provincial office downwards, the key role in ensuring the implementation of educational policies and standards is played by the inspectorate¹. However, it is noteworthy that no comprehensive system of training in the inspection or supervisory roles is provided, with the exception of short updating courses on recent educational developments. Formerly inspectors were sent abroad for training, but this has lessened and has not so far been replaced by any local training. Currently inspectors learn "on-the-job" from their peers.

1. The title "inspector" in the Sudan covers not only the inspector's role as it is usually understood, but also that of supervisor and also some middle-level administrative positions.

The inadequacy of this situation is reflected by the limited role currently played by most inspectors. Apart from their role in ensuring the efficient running of schools they should also be the principal agents of improved pedagogical effectiveness. Their job should not be just to check on what is happening but rather to encourage the better functioning of teachers. This implies that inspectors should be specifically trained both for the school management role and to guide and inspire teachers to be better teachers - the scope of training for inspectors should extend beyond educational administration to include areas such as pedagogy, educational psychology and leadership.

In any case it can be questioned whether the existing division of the inspectorate into technical and administrative groups is desirable. Since the two groups require the same qualifications there seems no reason why they could not both do the same work. By amalgamating the two roles it would be possible in the New Halfa situation with the existing staffing to give each inspector total responsibility for all aspects of the functioning of 12 - 15 primary schools. The inspector could then devote more time to each school, and the transport problem referred to below might be somewhat alleviated. For equity's sake, each inspector should cover a cross-section of both urban and outlying schools.

Another constraint on the effectiveness of the inspectorate is their lack of any independent means of transport. This is particularly problematic for the inspectors of primary schools who have to cover the largest number of institutions and all the least accessible ones. In New Halfa the pattern of public transport is from each village to the town in the morning and back in the afternoon, so that it is difficult to make trips from town to a village and back, e.g. to inspect the village school, without spending a minimum of two nights in the village - subject to the availability of accommodation, e.g. in a village of tents and mud huts where women and girls are meant to be secluded from non-family males. Moreover, there is no regular system of transport between villages and the road system tends to radiate from the town with only limited lateral connections between the different "arms" of the system, necessitating sometimes lengthy return trips to the town in between visits to the villages. The primary inspectorate could certainly spend much more time in the schools if equipped with its own four-wheel drive vehicle.

In other respects the effectiveness of the pyramid of educational administration in the Sudan may also be questioned. As a mechanism for translating central and provincial decisions into practice at the local level it may be characterised as fairly effective, though a number of specific instances of sub-optimal performance (sometimes due to lack of resources rather than poor functioning) have been noted. It is less clear that

the pyramid form is effective in channelling information for decision-making back from the schools to the district, provincial and national levels. In particular this is true of the link between school and district office. Factors such as communications difficulties and lack of transport undoubtedly play their part in the New Halfa situation. It is difficult for an inspector to ensure that an inefficient or unenthusiastic principal keeps him properly informed of a school's progress and problems by regular and adequate reports. Perhaps the frequency of reporting now required is too high. If principals had to spend less time preparing reports and inspectors less time reading them or requesting their submission, all could spend more time attending personally to the performance of the institutions under their control. All the more might be true at the provincial level, which is a much larger focus of reporting. The considerably expanded provincial administrative structure which is shown in Figure 5 could suffer from the same reservation to an even greater extent, particularly in relation to primary and intermediate education. It can be questioned whether provincial administrators know enough of current realities in the schools under their authority. This is not because they are not informed about the schools - they are deluged with reports, particularly from the large number of primary schools, so that it is questionable how many they have time to read, or how much information they can glean in the process¹. An in-depth periodic report from each local inspector, based on less frequent but detailed reports to him by the principals of the small group of schools under his control, would be a more useful decision-making tool for the provincial level administrator. In this connection the school record cards which it has been proposed to introduce will be a useful instrument, copies of which should be kept updated at both district and provincial levels.

1. Kassala province had 387 government primary schools alone in 1977/78. This implies that if all their principals regularly submitted their monthly reports to the provincial education office and assuming nine months of activity, the officials dealing with primary education (see Fig. 4) will have some 3,500 of these reports to read each year, ignoring completely all their other duties, or the time taken in acting on the reports.

VIII. The finance of education

A. INTRODUCTION

The 1976/77 Education Sector Review found that expenditure on education in the Sudan was about 5% of GNP. If the Sudan's GNP continues to grow at 5% to 7% per annum, then it is expected that the planned expansion of education can be met by continuing to spend 5% of GNP each year.

By far the greatest role in the provision of education is played by the government. Private and aided schools are of minor importance, particularly outside Khartoum. Thus the main source of educational finance is the central government. In addition the parents' councils of schools make contributions to the original capital cost of school construction and subsequently to the costs of school maintenance. Foreign aid to education plays a minor role, though it may be significant in relation to particular items of educational expenditure.

No attempt was made to produce exact figures of total educational expenditure in the New Halfa district. Indeed it would be very difficult to do this because only certain items of expenditure pass directly through district authorities, whereas others are spent at the provincial level with no distinction made as to the district within which they are disbursed. The comments that follow are intended only to illustrate the local pattern of educational expenditure and sources of finance, and to point out their significance for educational administration and the implementation of policies and plan proposals.

B. EXPENDITURE ON EDUCATION IN KASSALA PROVINCE

The key level for educational budgeting is the province. At this level the budget for education forms part of the local government budget for all expenditure within the province.

The annual budget procedure is initiated by the Ministry of Finance and Economics in Khartoum which sends a circular

letter to all provincial commissioners giving guidelines and the date for submission of budget proposals. The commissioners in turn send similar circulars to all the departments in the province to prepare their budgets. Officials of the Ministry of Finance go to the provinces to assist in the drawing up of budget proposals. These proposals have to be submitted to the Provincial Executive Councils for initial approval before submission to the Ministry of Finance, which adjusts them as necessary before giving its approval.

For the twelve provinces of the Northern Region the approved budget for education in 1978/79 amounts to 72.7 million Sudanese Pounds. To this must be added a further 9 million Sudanese Pounds for expenditure by the Ministry of Education. Kassala province's share of this is about 5.5 million Sudanese Pounds or about 6.7% of total approved expenditure in the Northern region. A more detailed breakdown of educational expenditures approved in the last two years in the province is shown in Table 14.

In the current year primary education accounts for 54% of the total educational budget in the province. The dominance of primary education is greater than this in the wages and salaries component of the budget, reflecting the greater weight of the teachers in primary education, with more limited use of books and materials and fewer boarding facilities. It is also noteworthy that there is very little increase in expenditures on adult education, suggesting that this has the least priority of any type of education in the province.

The greatest relative increase in expenditure on wages and salaries between 1977/78 and 1978/79 took place at the intermediate level, suggesting that this is where the greatest expansion of the teaching force and hence of enrolments is taking place. This presumably reflects the upward pressure exerted by the increasing numbers of pupils successfully completing primary education and seeking entry to the next level of the system.

1. In January 1979 new salary scales for administrators, teachers and workers, back-dated to July 1978, were introduced. These incorporate the cost of living allowances previously paid plus an additional increase of approximately one third. The budget for education has been expanded accordingly.

Table 14. Approved Budgets for Education - Kassala Province
(In Sudanese Pounds)

	1977/78	1978/79
<u>Wages and Salaries</u>		
Assistant Commissioner for Education (office)	512 580	610 680
Secondary Education	311 810	328 480
Intermediate Education	591 355	704 170
Primary Education	2 200 550	2 419 160
Adult Education	45 465	45 465
Total	3 661 760	4 107 955
<u>Services</u> (e.g. administrative costs, boarding costs, school activities, transport, utilities, maintenance, books, materials and apparatus)		
Assistant Commissioner for Education (office)	64 365	81 807
Secondary Education	60 715	180 000*
Intermediate Education	183 720	519 000*
Primary Education	410 038	590 850
Adult Education	33 000	43 193
Total	751 838	1 414 850
Grand Total	1 413 598	5 522 805

Source: Ministry of Finance, Khartoum.

*The size of the increases in expenditure on services for secondary education is mainly due to the decision to fully cover the costs of providing food in boarding schools in the budget this year.

C. EDUCATIONAL EXPENDITURES AT THE DISTRICT LEVEL

The district education office in New Halfa receives money from the province to pay various expenses of primary education. In the year 1977/78 the total approved expenditure for four councils was 25,817 Sudanese Pounds, broken down as follows:

	£S
Water, Electricity and Hygiene	6 674
Internal Maintenance	188
Foodstuffs	12 800

School Activities	410
Equipment Maintenance	1 449
Road Transport	2 806
Headmasters' Allowance for	
Local Materials	1 490

However, when compared with the approved expenditures at the provincial level for primary education under the Services section of the budget, these figures appear unduly low. This impression is borne out by the figure of £S 1,490 for local materials. Each headmaster is supposed to receive £S 5 per month for this purpose, i.e. £S 60 per annum. Since 1973, primary schools come under the financial aegis of the New Halfa treasury, this suggests that a total of £S 4,380 should be spent under this head each year: roughly three times the amount shown.

Conversely, the stated total of monthly salary payments to primary teachers and school employees - £S 29,543 - appears about right in relation to the provincial totals. For all levels of education within the area of the four councils, the monthly salary bill is approximately £S 47,000 with a further £S 6,000 paid out in Khashm el Girba.

Apart from the government budget there are other locally available sources of finance for education. The parents' council of each school endeavours to raise funds for school maintenance and also for extensions of the school facilities. In some instances parents have donated an area of land to a school so that the income from its cultivation may be added to the school's revenue. The Agricultural Corporation is another source of grants to schools for maintenance and capital expenditure and sometimes of labour and materials for the work to be carried out. Although locally important, this is an ad hoc source of finance which is hard to measure systematically - the Corporation helps out as and when it can. Similarly the sugar refinery provides money for the schools at Almassnaa, in particular the intermediate schools which have still not been taken over by the government. For this purpose, all workers in the factory have a deduction made from their salaries as a contribution to schooling costs.

D. CONCLUSION

The dominance of the government budget in the finance of education means that the further development of education is dependent on continuing expansion of government revenue beyond the rate of increase in costs of provision of government services. But in 1978 inadequately growing revenues obliged the central government to cut its planned development expenditures drastically. Moreover the increase in government salaries which has recently taken

place and which applies to those employed in the educational system is substantial. This will further increase the existing dominance of wages and salaries in the education budget and make it more difficult to find the resources for other expenditures, so as to maintain quality in an expanding educational system. Yet it is at the same time essential to make teaching a more lucrative occupation because of the attraction to educated Sudanese of working in other better paid fields or in the high wage oil-producing countries of the Middle East, e.g. Libya and Saudi Arabia, which leads them out of teaching or deters them from entering the profession.

These considerations make it imperative that increased attention be given to finding ways and means of reducing educational costs, i.e. of getting more education for each unit of expenditure. One such step would be to find ways of increasing the utilisation of teachers which at present appears rather low¹. Other steps might be to seek to reduce the incidence of high cost boarding education and to look for opportunities of introducing double shift schooling. Eventually consideration may have to be given to the charging of fees for secondary education. Some of these suggestions have been examined above, and others will be discussed in more detail in later sections of the study.

1. See Chapter II, section D above.

IX. Teacher training and upgrading

A. INTRODUCTION

A strong case can be made for saying that teachers are the most crucial element in the educational process: a good teacher can overcome deficiencies in other educational inputs; a poor teacher will fail to make use of the tools of education available to him.

This is particularly likely to be true in the Sudan. The facilities provided by schools are frequently limited and generally overcrowded. The teacher is thrown very much on his own resources in attempting to do his job. Thus the ability and capacity of teachers is basic to educational progress.

Hitherto, teaching has been a lifetime career in the Sudan with promotion into the higher ranks of educational administration as a prospect. But a number of factors have somewhat altered this picture. The Sudan is now a source of technical assistance to some oil-producing countries as a provider of teachers. More seriously significant numbers of recent secondary leavers who have been recruited to teaching leave the profession, either to enter higher education or to take more lucrative employment in the Sudan or the Middle East. Thus there is a tendency towards a shortage of teachers but conversely there is each year a larger crop of graduates and school-leavers competing for available jobs, so that there is always a fresh supply of recruits to teaching. The problem might better be described as one of increased turnover amongst less experienced and frequently unqualified teachers, so that the proportion of less effective teachers tends to be higher than it would otherwise have been.

Against this background we examine the existing teaching force in the New Halfa district and also the conditions of service of teachers, before considering the facilities for teacher training and retraining.

B. THE TEACHING FORCE IN NEW HALFA DISTRICT

The Nubian community in New Halfa has a tradition of working as teachers. In addition some members of the formerly nomadic tribes in the area have also taken up teaching as an occupation. Thus there is a tendency for the supply of recruits to teaching from the district to exceed the locally available teaching opportunities, thus obliging residents of the district to teach in other parts of the Sudan. Moreover, as will be seen below, the official policy with regard to conditions of service of teachers involves their being moved to other schools at regular intervals, so that some of the teachers in local schools are not from the district at all. However, there is no information on the numbers of local inhabitants teaching in other parts of the Sudan. Similarly because of the wide range of institutions involved, it is not possible to establish how many teacher-training students around the country come from the district.

The current teaching force in primary, lower secondary and academic upper secondary schools totals about 750, of which more details are given in Table 15. The agricultural vocational school has been excluded from consideration since it is a national institution controlled directly from Khartoum and in any case half of its staff are Egyptians working in the Sudan on contract.

Table 15. Teachers in New Halfa District, 1977/78

	Total	Male	Female	Trained	Untrained	Vacancies
Academic Secondary (of which Egyptian)	45 (10)	42 (9)	3 (1)	11 (Egyptians excluded)	24	2
Intermediate	121	94	27	58	63	8
Primary	589	413	176	508	81	33
Total	755	549	206	577	168	43

Sources: New Halfa and Kassala Education Offices.

A number of points stand out from the Table. At the secondary level the use of foreign teachers is significant and there are very few female teachers. In fact, 14 out of 17 teachers in the girls' school are male. Also only about one-third of the Sudanese teaching at this level are reported to have had teacher training. At the intermediate level, the preponderance of male teachers is less marked but still there are many teaching in the girls' schools. So far as is known, there are no female teachers in boys' schools. It is also notable that just over half of the intermediate teachers are untrained. At the primary level, 30%

of the teachers are female which compares reasonably well with the 40% female enrolment. Relatively few primary teachers are recorded as untrained, though the trained category presumably includes the 100 odd who attend in-service training in New Halfa on a day release basis.

(i) Secondary Teachers

Most secondary teachers are university graduates but a few have only two years of university studies plus some teacher-training. There is a one-month summer training course for graduates in Khartoum. Diploma of Education courses exist in the Faculty of Education of the University of Khartoum and also in the Islamic University of Omdurman and in addition some teachers are sent to Egypt to obtain this qualification. Although there does not appear to be any significant shortage of teachers at this level, except among females, turnover is a problem, particularly among English and science teachers, who are attracted to better-paid jobs outside teaching in the Sudan or elsewhere. More stress is needed on science subjects in the Faculty of Education and the Higher Agricultural Institutes. The ratio of teachers to classes appears particularly favourable. The boys' school has 27 teachers and two vacant posts for ten classes, while the girls' school has 17 teachers for seven classes.

(ii) Intermediate Teachers

At this level teachers are graduates of secondary schools, and may have an extra year of teacher-training, usually after having worked as an untrained teacher for several years. Given this educational profile, the proportion of untrained teachers at this level indicated above is disquietening. Untrained teachers entering the profession receive one or two weeks of preliminary training to learn the techniques of class management and the content of the curriculum, then begin to work under the guidance of more experienced teachers. Because of the shortage of trained teachers, an endeavour is being made to spread them evenly among the schools. The target is to have 7 trained teachers in a one stream school. But in practice there are not enough trained teachers available to achieve these target ratios. Instead, two stream schools are likely to have only 5 trained teachers and one stream schools only 3. Opportunities for refresher training at this level are available especially for English and Mathematics teachers besides principals and those teachers due to become principals. But the principal at this level is primarily concerned with administrative matters, especially in schools with boarding facilities, and normally does little teaching. They learn their administrative duties by working first as an assistant principal under the guidance of the principal.

Given the ample provision of inspectors for intermediate education, the main constraints on the provision of in-service and refresher training at this level would appear to be financial and logistical. The more difficult subjects to fill with trained teachers at this level are in mathematics, science, Arabic and religion. Many of the untrained entrants to teaching see it as a step to further education or work abroad and so there is a greater likelihood of new teachers resigning.

(iii) Primary Teachers

Until 1970, all primary teachers entered the profession only after completing teacher-training. But the subsequent rapid expansion of primary education has meant that the demand for new teachers has increased faster than the expansion of teacher-training facilities, so that untrained secondary school leavers are now recruited as teachers as well. In Kassala province as a whole, there are currently some 350 untrained primary teachers, almost half of them female. These represent over 10% of the primary teaching force. It is hard to see an early resolution of this problem because further expansion of primary education implies a continuing growth of demand for new teachers, and also wastage among teachers leaving to take up other employment is particularly concentrated among the recently recruited untrained teachers, many of whom appear to see teaching merely as a source of income while looking for more lucrative employment. Thus there is likely to be a growing demand for untrained recruits to primary teaching. The desire further to increase the enrolment of girls in primary education puts a premium on the recruitment of females for primary teaching, as does the desirability of having more female teachers for all primary pupils, and this is another factor favouring the entry of untrained recruits, since facilities for training of female teachers are less developed. The in-service training schemes which are discussed below are helping to ameliorate the situation but an expansion of primary teacher-training institutions, at least on a temporary basis, would be the most effective answer, though present financial constraints make its early realisation unlikely.

There is an official procedure for resignation from teaching, which requires six months' notice to be given, but not all those leaving the profession take the trouble to follow it, some choosing simply to leave without notice. This happens particularly among the recent recruits. In the last year some 100 primary teachers, i.e. about one-sixth of the total, are estimated to have resigned in Kassala province. A desirable step would be to establish a service agreement for teachers guaranteeing entry into teacher-training at an early date. It would also be useful if third-grade secondary students with an interest in teaching could have an opportunity for teaching practice while still at school.

C. THE CONDITIONS OF SERVICE OF TEACHERS

Vacancies for teachers are advertised, applications are vetted by an appointed committee and selections made on the basis of interviews. Appointments are confirmed following verification of date of birth, nationality and educational qualifications. Primary teachers are recruited from secondary graduates or from intermediate graduates who have also completed a four-year teacher-training course. Intermediate teachers are also graduates of secondary school and they normally proceed to teacher-training only after having worked for several years as teachers. Secondary academic school teachers and the teachers of academic subjects in secondary technical schools should be university graduates and preferably have an education diploma. Technical teachers mostly are graduates of the Technological Institute in Khartoum. Starting pay is based on level of education. The first promotion is dependent on completion of teacher-training as well as a certain period of service. If for any reason the teacher was unable to complete training within the period stipulated for promotion, his promotion will be back-dated to the relevant date as and when he does complete the training. In any event teachers receive annual salary increments as long as their performance is judged satisfactory by principals and inspectors.

Teachers' salary scales come some way down the civil service range. Officers, doctors, engineers and agriculturalists are all placed on higher ranges. However, discussion of salaries is not fruitful at this particular point in time because apart from the substantial salary increase recently awarded, a review of the whole structure and basis of civil service salaries has recently been initiated, beginning with a detailed job evaluation exercise.

One problematic aspect of teachers' conditions of service derives from the practice with regard to transfers and promotions. There is an endeavour to ensure that each school has a group of teachers of varying lengths of experience. An educational system which is fast expanding and also has a significant degree of wastage among teachers inevitably has a substantial number of inexperienced teachers. In an endeavour to avoid concentrating these in particular schools, with the likelihood of impairing the quality of education available there, the policy is to spread such teachers over as many schools as possible to permit them to benefit from working with more experienced colleagues. Natural wastage and resignations then imply a frequent need to move teachers about to

1. Against this it should be noted that the in-service training scheme requires that the trainees be placed in schools accessible to the training centre, to facilitate the attendance of the trainees each week.

retain a balanced staff in each school. This also implies the likelihood that when teachers are promoted they will also be transferred in order to avoid production of an over-qualified staff in their present school relative to the average.

A further influence conducive to the regular transfer of teachers is historical. The educational system began in the main urban centres and these in turn were the source of supply of teachers to be sent to remoter areas as schools also opened there. Thus there were humanitarian grounds for rotating teachers between the urban and rural areas when most, if not all, teachers came from urban centres. (There may also be a vestige of the colonial period here when it was the practice to move officials to different areas at regular intervals to prevent them developing strong local allegiances.)

While there are thus clear grounds for the practice of regularly transferring teachers, there is also no doubt that the practice can also be harmful to education. At present, many teachers are strangers to the communities in which they temporarily work. They may also be living in very inferior conditions, e.g. five male teachers using a classroom as their living quarters and office, three unmarried female teachers sharing a one-room hut, to quote two examples from the New Halfa district, and often are separated from their families. Thus the teachers in a village, though they are perhaps the best educated people locally and have a potential role in community development, may well be isolated figures in a state of relatively low morale. In such a situation their effectiveness as teachers is reduced, and their commitment to teaching likely to be impaired. Also, if transfers occur every three or four years, which seems to be the average, this implies that a teacher is never able to see a child right through primary school and seldom through either of the secondary levels. Thus there is rarely anyone who follows a child's progress right through any stage of education. This may well be detrimental to the child. All the more is this the case when, as was observed in one intermediate school in New Halfa district, the entire staff is transferred at the same time, so that a new staff, themselves strangers to one another, are then confronted by an existing student body. Add to this the need to resettle themselves, and perhaps their families, and it is hardly surprising if their effectiveness as teachers is reduced, at least for an initial period.

Thus the present practice of regular transfers of teachers, while intended to spread the burdens of teaching equally among all teachers and be a measure towards harmony of educational standards, may well be deleterious to individual children's performances and certainly makes life more complicated for many teachers, perhaps inducing some resignations and in a sense exacerbating the situation it is intended to alleviate. With the spread of primary education to all parts of the country, it should by now

begin to be possible everywhere to find recruits of local origin for entry to primary teaching. On this basis it should be possible progressively to localise the appointments of teachers to their area or at least the province of their origin. Apart from the beneficial effects which it is suggested this would have on education, it could also be a significant financial saving if the need to transport teachers and their families to different parts of the country every few years, not to speak of annual leave travel, could be reduced. In line with this it is worth considering decentralising the personnel management function, at least for primary teachers, to the provincial level. Is there any reason why all promotions should have to be approved at the national level, especially since, according to one provincial administrator, 97% of recommendations for promotion are approved? A lot of administrative effort and expense could be saved if only the few contentious recommendations required national-level decision.

Another practice in relation to teachers' conditions of service which is perhaps in increasing need of modification is that of linking the teacher's level of education to the level at which he teaches. Thus a secondary school graduate who teaches in the intermediate school and succeeds by his own efforts in obtaining a tertiary level qualification has difficulty in continuing to teach in the intermediate level as he is now qualified to become a secondary teacher. In this case he loses any higher standing as an intermediate teacher that his new qualification might have given him, with the possibility of access to a higher point on the pay scale, and instead becomes a regular entrant to teaching at the next level of the educational system with the likelihood of lower pay at the bottom of the next scale. This would appear to be a deterrent to the more dynamic teachers, on the one hand to attempt to improve themselves or on the other hand to increase their expertise within the level of teaching at which they currently function. As it is the administration of teachers appears to be over-bureaucratized and could give more incentive to teachers to pursue their individual teaching interests and make their own contribution to improving the quality of education.

D. THE ORGANISATION OF IN-SERVICE TRAINING FOR TEACHERS

To cater to the needs of the untrained primary teachers, a series of In-Service Education Institutes has been created, with some UNICEF help, and one of these is located in New Halfa.

1. In February 1979 a Presidential Decree to further enforce decentralisation of educational administration was issued.

The Institute runs a two-year course for a group of 100 trainees who attend in four groups of 25 each on one day per week for thirty weeks of the year. Each day's session lasts three hours. Each week the trainees are given an assignment to prepare, discussion of which forms the basis of that week's programme. There is also a 15-day summer course, concentrated on training in the use of visual aids. The staff of the centre consists of the principal, who is a trained intermediate teacher, and one assistant, a trained primary teacher. Apart from guiding the discussion groups, the staff also endeavour to make four visits to each trainee each year to observe their teaching performance. On appointment they receive 7 - 10 days of training in Khartoum at the In-Service Training headquarters to enable them to run courses and also on the use of visual aids and equipment in training.

In order to facilitate their attendance at the Institute the trainees, all of whom are secondary graduates just entering teaching, are posted to the nearest and most accessible schools, while more experienced teachers are more likely to be sent to the more remote schools. Of course this risks lowering the quality of education available in the schools having trainees, which is doubly unfortunate since these are also likely to be the most overcrowded schools but the alternative is that the trainees would not be able to attend training each week. In any case, of the last batch of trainees in New Halfa, 15% dropped out before completing their training.

Since teacher-training is a national level responsibility, the Institute receives materials and is inspected from Khartoum and also sends reports there monthly. However, the financial support comes from the provincial authorities in Kassala and they are also responsible for selecting the trainees.

UNICEF assistance has included subsidising the attendance costs of the trainees and the provision of a Land Rover and driver for the Institute, to facilitate observation visits to the trainees.

Future plans of the in-service training headquarters in Khartoum include courses for intermediate school teachers, for administrative inspectors and school principals, refresher courses for the current trainees and new courses for older teachers with fewer formal qualifications. To what extent these plans will come to fruition in New Halfa remains to be seen, but it is certainly a priori feasible for the local inspectorate to provide in-service training for local intermediate teachers.

E. FACILITIES FOR TEACHER-TRAINING

As was mentioned in an earlier section of the study, there are no full-time facilities for teacher training in New Halfa district,

so that local students wishing to train as teachers must go to a variety of institutions elsewhere in the country. In order to collect information on the nature and content of teacher-training, visits were made to the Teacher Training Institute in Kassala which trains male primary teachers and to the Omdurman Teacher Training Institute which primarily trains female intermediate teachers, but temporarily also provides evening classes for male students. A visit was also made to the Institute of Education at Bakht er Ruda, primarily to discuss educational research and activities in curriculum development and preparation of teaching materials, though the Institute is also a centre for training male primary and intermediate teachers.

(i) Primary

Recruits to primary teacher training may be either intermediate school-leavers who follow a four-year course of training or secondary school-leavers who follow a one-year course of training. Since the first three years of the four year course are equivalent to secondary education, it appears that all trained primary teachers therefore have the same educational background. The fourth year of training includes study of visual aids (6 weeks) and teaching methods (8 weeks), 9 weeks of teaching practice in local schools and 7 weeks in the student's home district. The last 4 weeks of the academic year the students themselves organise and prepare activities for the Annual Day, e.g. exhibitions, displays, etc., which is potentially useful training for part of their future role in school. During the student's teaching practice the Institute's staff travel around schools visiting and guiding former students now teaching. After several years of experience, the former students should come back to the Institute for a refresher course. In addition, those secondary leavers who enter teaching directly have an 8-week summer course on teaching methods during the summer vacation.

Despite the scarcity of teachers, there is some evidence that teacher-training facilities are not fully utilised. In Kassala, although the Institute has a capacity for 400 boarding students, its 1978/79 enrolment is only 353 of whom 210 are fourth year students. Apparently repeated changes of policy on entry regulations have impeded the regular flow of entrants. Although drop-out during training does not appear to be very significant, a more serious problem is that of secondary graduates who complete teacher-training but then fail to enter teaching. The number of applicants for entry to the Institute does not greatly exceed the available places, suggesting that teaching at the primary level is not very popular with boys. Since it is increasingly accepted that women teachers should teach boys at the primary level and the proportion of women primary teachers is increasing, it is worth considering the advisability of switching some male teacher-training

facilities over to female use or alternatively making them co-educational, as is being done for the training of intermediate teachers.

(ii) Intermediate level

Entrants to intermediate teacher-training must be secondary graduates who have already spent at least two years as teachers in intermediate schools. The course lasts for one and a half academic years, although at present male students are having an accelerated course of only one year because of the shortage of male teachers. During this time females have 6 weeks of teaching practice but males only 3 weeks. The two compulsory subjects are educational psychology and religion. In addition one optional group of subjects must be chosen from five different possible combinations of Arabic, mathematics, English, geography, history, science, Fine Art or Islamic studies. Finally, the students must select one activity, chosen from the following: domestic science, rural education, music, drama or physical education.

Although the women's Teacher Training Institute in Omdurman used to run two simultaneous courses fully utilising its 400 places, at present only one course with 250 students is operating. This is because previously most of the students were from Khartoum and did not need boarding facilities, whereas now most students are from the provinces and the boarding facilities are inadequate to complement the capacity of the teaching facilities. Moreover, out of 250 entrants to the course, no fewer than 70 have dropped out due to various causes such as marriage, migration abroad or academic failure. Thus, currently, less than half the capacity of the college is utilised by full-time students. In addition, some 40 to 50 of the students are simultaneously taking evening studies. If they manage to obtain their degrees they will seek either alternative, better paid employment or at least move to secondary teaching. A more constructive approach might be to give additional standing to intermediate teachers who thus obtain a degree, rather than requiring them to move to secondary teaching. Enrolments in the various optional subjects are as follows: Arabic 118, mathematics 99, history 76, English 75, science 57, geography 56, Fine Art 43 and Islamic studies 20. In the different activities there are 64 students taking rural education, 51 in domestic science, 22 in drama, 20 in music and 16 in physical education.

Since the students are already teachers they continue to receive their salaries while training, and the training period is also considered as full-time service and counts for promotion. Normally students receive a promotion on graduating. Any student who fails the course can return to teaching and re-enter the training course two years later. A second failure leads to dismissal from teaching.

One aspect of training is the effort to teach the trainees how to be self-sufficient and overcome problems caused by shortages of materials and equipment. There is emphasis on making one's own teaching aids. The institute lends itself to this approach because it too is short of equipment and supplies for teaching because of budgetary limitations. It would be desirable for the staff to use local inspectors to check on the effectiveness with which former students continue to make and use their own teaching aids. As is shown above, the most popular activity in the institute is rural education, but in the intermediate schools in New Halfa district, no instruction in this field was being given, usually it was stated due to lack of equipment and student disinterest. This appears to imply that an important aspect of the training programme fails to be applied in practice, partly because of teachers' inability to overcome the difficulties of the teaching situation, but also partly for social and pedagogical reasons - rural studies are not currently an academic subject affecting access to the next level of education.

F. CONCLUSION

It is arguable that the district, and perhaps the Sudan, are not getting full value from their teachers. This is not necessarily to denigrate the teachers, for the proposition is arguable from several points of view, and the teachers themselves are only one of the factors involved.

The service conditions of the teachers appear to be too rigidly conceived. In some respects they still hark back to the days when teachers were a scarce elite drawn from the main urban centres and to be manoeuvred around the country from the capital. Today, when it is increasingly possible that the village primary teacher can be a boy or girl who completed primary school in a neighbouring village within recent years, it would be more realistic to regard him or her as a local resource person for development and modernisation at the village level. Thus the teacher can act also as a village leader, able to stimulate beneficial changes.

The teacher-training facilities visited were all being significantly under-used. The reasons for this appear to be internal, deriving from failures to adapt sufficiently quickly to changing situations, e.g. the more rapid growth of female entrants to primary teaching or the growing diversity of geographical origins of trainees, necessitating the provision of more boarding facilities. To some extent, the growth of in-service training is a compensatory development, particularly if drop-outs are reduced.

The approach to education followed in the training institutions appears to be significantly more active than that practised

in the schools. Thus in the institutes vocational subjects, e.g. rural studies, Fine Art, domestic science, are taught and stress is placed on the use of visual aids and the need to be self-sufficient in the teaching situation. In the schools in New Halfa district, vocational subjects are scarcely ever being taught, allegedly because of scarcity of qualified teachers and/or equipment, and a good display of visual aids is exceptional. It might be more realistic to say that the absence of attention to vocational subjects is due to parental and pupil disinterest, because these subjects do not contribute to examination success and promotion prospects. Also, though this is harder to establish, the scarcity of visual aids and home-made equipment may be due to a perception on the part of many teachers that such efforts will not benefit them in any way and it is simpler to achieve examination success by rote learning and cramming. To what extent would or could creative initiatives by a teacher be taken into account in accelerating his promotion?

Having said all this, it must be observed in conclusion that the great majority of the teachers seen in the schools do appear to try hard to do their jobs, whatever the limitations placed upon them by their work situation. The point is perhaps rather that many teachers are not being given the full opportunity to realise their own potential in their work.

X. The supply of educational materials

Under this heading may be included textbooks and library books, stationery, visual aids, furnishings and science equipment. The supply of all types of materials is organised centrally from the Ministry of Education in Khartoum. Several sections of the Ministry are involved, e.g. the Libraries Section, the Laboratory Research Unit and the Supplies Section which is responsible for textbooks and stationery.

A. TEXTBOOKS AND STATIONERY

For each type of material, the ordering and supply procedures are broadly similar, with the exception of library books which are discussed separately. In the case of textbooks and stationery, the Supplies Section in Khartoum plans its stocks on the basis of the trends in educational enrolments and an assumption that 50% of the books currently in circulation will be returned for further use. The provincial education offices collect orders for new books from schools and district offices and collate these into a single provincial order to be sent to Khartoum. This has to be paid for by the Province from its funds for education. The province then has to arrange for the transport of its order from Khartoum to the provincial headquarters, where it is broken down into the separate orders submitted by districts and schools and sent on to them. The inadequacy and expense of transport are major problems, particularly at the beginning of the school year after the rainy season when many roads and tracks are still impassable.

The majority of textbooks are produced within the Sudan, the principal exceptions being some English language and Arabic books. A significant proportion of locally produced textbooks come from government presses but for the remainder the Supplies Office seeks tenders from local printers. Similarly they also seek tenders for the supply of books from abroad.

The choice of textbooks for all levels is determined in the first instance by the curriculum development section of the Institute of Education at Bakht er Ruda, which is also responsible for textbook preparation. In the past there have been complaints that some difficulties of textbook supply have stemmed from revisions in textbooks following changes in the structure of education.

The supply procedures followed in Kassala province were described in the chapter on the structure of educational administration, and this will not be repeated here. Enquiries in schools in the New Halfa district concerning the availability of supplies received varying responses. Several weeks after the beginning of the school year about half of the schools visited mentioned some shortages of books. But this was ascribed principally to the current local lack of petrol, limiting transport possibilities from Kassala to New Halfa, and only in one or two instances did the shortages appear to be of major proportions. This suggests that, at least in the New Halfa district, the book supply mechanism works reasonably well and its shortcomings are not always within the control of the educational system.

B. SCIENTIFIC EQUIPMENT

This refers mainly to the supply of apparatus and chemicals for science studies in all types of schools. Virtually everything has to be imported, since local manufacture of the simplest items is only just beginning at the Ministry of Education's Laboratory Research Unit. There are as yet no private sector producers of any of these items in the Sudan, nor any local capacity to repair imported equipment.

The Supplies Section of the Ministry of Education in Khartoum is responsible for the procurement of supplies from overseas. The procedure is essentially the same as that described for textbook supply. On the basis of the orders from the provinces, international tenders are invited. However, there are numerous difficulties, in particular the scarcity of foreign exchange, and the problems of transport both within the country and internationally. On occasions it takes up to two years from the receipt of a school's order to its arrival at the school! Once materials are received in Khartoum the problems do not cease because storage space is totally inadequate and many items, including chemicals, have to be left in the open under the hot sun, which is another source of wastage and loss. There is a necessity for additional storage facilities to be built.

At present annual spending in this field is some \$S 500,000 plus whatever foreign aid can be obtained for the purpose.

C. SCHOOL LIBRARIES

In 1974 the Libraries Section of the Ministry of Education was established with the objective of creating libraries in all schools and to encourage training in library science for teachers.

The principal problem so far is lack of funds. In four years only 15 libraries could be built at a cost of *£S* 6,000 each and only 7 of these could be furnished and equipped at a cost of *£S* 1,500 each. However, each of the 150 secondary schools in the country has been supplied with a collection of 600 books at a total cost of *£S* 150,000. But very few schools have staff members with the necessary training to properly administer such a collection; only 12 people have been trained so far. For intermediate schools a collection of 100 books, costing *£S* 150 per school is envisaged, with a different collection of 100 books for primary schools costing only *£S* 75 per school. Some *£S* 15,000 has been spent by certain provinces in these directions so far but not by Kassala. It is intended that the books supplied should last for three years before needing replacement.

The section puts out tenders for the supply of books, which are despatched directly to secondary schools and to the provincial offices for distribution to intermediate and primary schools.

It is clear that, given the current and foreseeable financial constraints in the Sudan, this ambitious programme has very little hope of being realised. Thus it could be a good candidate for foreign assistance, whether financial or material, and assuming that the books being provided are mainly in Arabic, some of the wealthier Arab countries might be approached for help. Incidentally, it is interesting to note that one of the primary schools visited in New Halfa had a scheme for each pupil to contribute one piastre per week towards the cost of purchasing school library books.

D. VISUAL AIDS

A plentiful supply of visual aids can be very helpful in making the classroom a stimulating place in which to learn, but they are conspicuous by their absence or at least rarity in most classrooms.

As mentioned earlier, in the Sudan the main source of visual aids is meant to be the teachers themselves, who receive appropriate training for this purpose. But a number of factors impair the effectiveness of this approach. There is still a significant proportion of teachers who are untrained, so presumably are also untutored in the production of visual aids. In any event, not all teachers even when trained have the same aptitude for making visual aids. Finally, and particularly in rural areas, it may be difficult to obtain supplies of the

necessary materials - even such simple items as cardboard may be hard to find. Despite these problems, local self-reliance with respect to the supply of visual aids should be further encouraged.

Apparently there are supplies of visual aids in Khartoum and in some training centres, but they are not distributed to schools. In part this is because the general lack of importance given to visual aids means that no place is found for them in provincial budgets, or that there is undue delay by provinces in paying Khartoum for their supplies of aids.

The possibility should be investigated of producing a range of visual aids for supply to all schools in each level of education, perhaps also with variations for each grade, covering subjects of national and international interest (this could be a possible area for foreign assistance). These could play a part in promoting the common "national" content of education, and they could be supplemented by aids produced by the teachers concentrating on topics of "local" interest, e.g. the life cycle of local plants or insects.

E. CONCLUSION

With the possible exception of textbook supply, the supply process for educational materials in the Sudan appears to be subject to many drawbacks, in particular those deriving from the inadequacies of the transport system. This is partly a consequence of the centralised procedures employed, yet it is questionable how far local purchasing could be substituted, because of the frequent absence of local supply points, particularly in the rural areas. Would it be possible, though, to move the distribution of imported materials from Khartoum to Port Sudan, the main point of entry? This could reduce the transport involved and might lessen some delays. All administration and ordering could still be handled centrally from Khartoum, with instructions for despatch sent to a separate shipping unit in Port Sudan for forwarding directly to provincial education offices.

More investigation is also needed of the possibilities of locally producing more types of educational materials, perhaps in collaboration with some of the other smaller Arab countries not themselves able to justify production.

It might be said that as yet efforts in the Sudan are still concentrated on the production of teachers and schoolbuilding as the prime inputs into education. A wider awareness beyond the Ministry of the necessity and value of educational materials, other than textbooks, needs further cultivation.

XI. Schoolbuilding and maintenance

Schoolbuilding is not currently an important activity in the New Halfa district. Only one new primary school was built in the 1977/78 academic year and no new institutions at the secondary or intermediate levels are envisaged immediately. However, several temporary primary school structures are in the process of being replaced by more permanent buildings and a number of schools are still being extended with new classrooms or dormitories. The next problem could be the need to introduce double streaming in some of the larger villages as enrolments grow.

Several types of primary school building can be found in the district. A few villages close to the Atbara river had primary schools established before the beginning of the agricultural scheme and these are possibly the oldest schools buildings in the area. The original 25 villages for Nubian resettlement in the irrigation scheme also had primary schools provided and these appear to be well founded, with raised concrete floors and sometimes roof insulation. In the nomad areas at the northern end of the district, UNICEF, during the late 1960s, sponsored the building of four primary schools each with four classes, which are possibly the best built schools in the district. As primary education has spread to the remoter irrigated areas and beyond, among the nomads, villages have built their own schools, usually of a poorer standard with a roof and four walls and often only a bare earth floor.

In the past, the initiative for new schools has usually come from the community, though the authorities now try to maintain some control over what is erected. There are now standardised designs for school buildings prepared by the Ministry of Construction and Public Works. In 1978 the estimated cost of a primary school was \$S 40,000 towards which the government provided a subsidy of \$S 12,700, the rest having to be found by the community from other sources¹. Quality control over new building is

1. El-Haggaz and Garvey-Williams, *Community participation in the provision of school facilities in Sudan*, Unesco document ED-78/CONF.734/REF.4.4 Paris, June 1978, p. 7 (Ministry of Works figures).

supposed to be carried out by the local staff of the Ministry of Works. In the New Halfa district, government finance for school building is channelled through the local education office. The sugar factory gives grants for school construction at Almassnaa, and in addition, the factory workers contribute to the cost of school maintenance. Elsewhere the Agricultural Corporation gives a grant for school construction, though the amount appears not to be fixed. The balance has to be found by the members of the community from their own pockets. As a result, while it is not so difficult to begin construction once the government's conditions have been met (see the Chapter above on the structure of the educational administration), the construction process may well be spun out over a long period depending on the community's ability to raise extra resources to finance it. Alternatively the shell of the building is completed but floors, window shutters, roof insulation, etc., cannot be provided. In very few instances in the more recent schools has any attempt been made to construct a school compound.

Every school has to have a Parents' Council (see next chapter) and it is this body's job to take care of school maintenance by means of donations raised from the pupils' parents. In a few instances local residents have given land to schools which can be cultivated and the products sold to provide income to finance school maintenance. Frequently the Agricultural Corporation will make a grant towards school maintenance and the Local Education Office provides funds to the extent that they are available. This is the situation of primary schools. From the intermediate level upwards there is more government involvement in maintenance and it is intended in future that the local Ministry of Works staff should carry out the work, though here again parents are meant to make a financial contribution.

Visits to a number of local schools showed that while considerable maintenance activity has been carried out in several during the recent vacation, and was still in progress in a number of instances, there were many cases where maintenance was sorely lacking. The present system appears to discriminate against the poorer communities, which have less resources available for school maintenance. To what extent would it be possible for the Provincial Commissioner who controls provincial grants for school maintenance to use them more discriminatingly in favour of the poorer communities so as to balance their lack of alternative resources?

XII. Local community participation in education

Community efforts to achieve various local objectives are traditional in the Sudan. Thus local communities have created and supported their own Koranic schools. The most important recent manifestation of this spirit in the field of education derived from the decision to extend the period of primary education from 4 years to 6 years under the New Educational Policy following the 1969 Revolution. This involved the building of two additional classrooms and an office in every primary school in the country.

Following this experience, Parents' Councils were established in all schools. Each Council is run by an executive committee, some of whose members are normally drawn from the teachers in the school. The principal acts as secretary to the Council. The Council's financial affairs are kept separate from those of the school.

In practice the main activity of the Councils appears to be to raise money and in some instances to provide labour for the maintenance of school buildings and furniture. A second associated activity is to raise money for extensions to, or replacements of buildings. The means of raising money for these purposes varies. In some instances parents make donations in accordance with their means, while in other cases a flat rate contribution is levied. One or two schools have been given land, which can be cultivated to produce revenue for the school. Many schools have an annual day, at which items made by the children and parents can be sold as another minor source of revenue. The Council may also provide some financial support to poor pupils, particularly at the intermediate and secondary levels.

Essentially the Parents Councils play an economic role in relation to the school. (This could be further developed, with supervision by the district and provincial levels, e.g. through the establishment of co-operative activities whose revenues could go to the support of schools.) It was repeatedly emphasized during visits to schools that the Councils have nothing to do with pedagogical matters or with the running of the school.

Another point of interest is that usually it is only fathers who are involved in the Councils. This is certainly the case for boys' and co-educational schools. In several instances where boys' and girls' schools were located together, the Council of the boys' school was found to be serving both schools together, since the same parents had an interest in both schools. However, in some such cases female teachers may participate in the committee of the Council. It is only in certain girls' schools that mothers appear to be the active participants in the Council. Why this should be so is not quite clear, in view of the fact that women are frequently members of the local People's Councils and even serve on their committees. A final point concerning the membership of Parents' Councils is that at boarding schools the committee members are for obvious reasons only drawn from among those parents living in the immediate vicinity of the school.

Many Parents' Councils appear to make quite extraordinary efforts to raise money to improve and maintain the school's physical facilities and it is unlikely that they can be asked to do more in this direction. But it may be asked whether parents could do more to improve the environment of the school. For example, at present the provision of visual aids in the classroom is left entirely to the responsibility of the teacher. Not all teachers are equally endowed with the ability to produce visual aids, however willing they may be, so that while one classroom in a school may be well provided, the next may be almost bare. As a means of redressing such imbalances, the help of parents, in particular mothers, might be sought. In this context, it is worth remembering that many schools are also the site of a literacy class, particularly for women. To what extent could production of visual aids for the school become one of the activities for the literacy class? In this way formal and non-formal education might be linked more closely, quite apart from the improved classroom environment thus created. Another role in which Parents' Councils might also be used is as an agent to broaden parental views of education. At present it is widely stated that parental views of education are unduly narrow and academically oriented - they seek their children's success in examinations as the only purpose of education. What can be done by teachers, and in particular, the principal, in meetings of the Parents' Council to explain the value of sports and non-academic subjects in education? Visiting inspectors, particularly if they are spending more than one day at a school, might also pursue such issues in an address to the Parents' Council members.

These suggestions amount to a proposal that Parents Councils should, while continuing their existing role as a source of school finance, also become a much more active participant in the educational process in each school. Parents could thus be

given the feeling of playing an active role in the educational system. This can be a means of integrating school and community more closely together and ultimately of increasing the role of the school as an agent of change in the community.

XIII. General conclusions and observations

A. INTRODUCTORY COMMENTS

The Sudan has had for many years a well established centralised administrative structure. The education system has been an important component of this structure. With the continuing spread of rural development and education, it became increasingly clear that a highly centralised administration, however competent and well intentioned, could no longer apply the degree of local scrutiny necessary to ensure efficient functioning in an ever-increasing number of localities. In this context the present government took some important initiatives designed to decentralise many administrative functions, in education as in other spheres of government activity, and also to involve local populations more closely in these activities¹.

In the field of education these initiatives resulted in the greatly increased importance of the provincial educational authorities and their dependent district offices, and the growth of parental and community involvement in the financing and maintenance of schools. Nevertheless, although these initiatives have been important in maintaining the effectiveness of governmental oversight of education, the continuing rapid expansion of education, and in particular of rural primary education, means that the educational system has a tendency to outgrow the mechanisms meant to control, guide, and encourage it. A number of signs of this tendency have been referred to in the body of the study, e.g. the failure of teacher-training to keep pace with the demand for new teachers at both the primary and intermediate levels, the virtually total neglect of vocational subjects in the schools, even though teachers are still trained to teach them and they continue to be part of the curriculum, the increasing congestion of schools as enrolments increase well beyond the theoretical maximum capacity

1. The Presidential Decree of February 1979 is a further step in these directions.

of the existing buildings, particularly in urban areas. The contemporary educational system in the Sudan may thus be likened to a tightly stretched elastic band which could break with just a little more tension. At present the pupils in primary and intermediate schools have the bare minimum of facilities - a limited space at a crowded desk in a crowded classroom, some books and writing materials and a teacher to follow. Out-of-school activities seldom exist, vocational subjects virtually never exist, and the visual aids which could help to make the classroom more of a place of discovery are seldom found in any number. Rather the school is an austere, sometimes run-down place into which the pupils crowd every day to gather the knowledge necessary to advance up the educational system. When it is borne in mind that on top of this the government wishes to expand enrolments of 7 year olds in the first grade from 45.7% in 1975/76 to 100% in 1990/91¹, it is clear that any interim measures that can be taken to facilitate the functioning and further expansion of the present system, and if possible lower its unit costs, become not just desirable but essential to avoid breakdown of the present overstretched machinery.

In this situation of stress and strain on the educational system, the local level of educational administration, as instanced by the New Halfa district, has two important roles to play in improving the provision of education and in acting as the eyes and ears of the administration to provide advance warning of problems as or even before they arise. As a provider of education the New Halfa administration has been able to operate an expanding system. The shortcomings which exist, and have been referred to earlier, are not peculiar to the district, and cannot be laid on the shoulders of the local educational officials. More questions arise over the effectiveness of the local machinery on reporting on progress and highlighting problems. The adequacy and efficiency of inspection is undoubtedly less than is desirable. In the first instance this is due to the difficulties of communication and transport in the area, which prevent the inspectors from visiting the schools as often as desirable. But beyond this, it is arguable that the existing structure of inspection could be made more efficient. Is there any good reason why female teachers should only be inspected by a female inspector and male teachers by male inspectors? This practice involves duplication of inspection visits in co-educational schools, and as the proportion of female teachers increases this problem will probably spread to some boys' schools as well. Also the division between technical and administrative roles in the inspectorate carries with it implications of inefficiency, because it means that two inspectors are responsible for different aspects of the operation of each school, which

1. Ministry of Education, *Sudanese Education*, op. cit. p. 165.

in turn requires additional visiting to be effective, since each inspector has a partial responsibility for a large number of schools. A simpler and potentially more efficient system would be to make each inspector wholly responsible for all aspects of the operation of a smaller number of schools. This would reduce the number of visits needed to be made to schools by various inspectors (or at least, that should be made, since they often are not at present), and enable each inspector to give much closer attention to the problems of each of the fewer schools under his supervision.

On paper there is at present a comprehensive system of reporting from schools to district and provincial education officials, but it must be doubted how well it works in practice. The frequency of reporting (monthly in some instances) implies the risk of its becoming a mechanical procedure on the part of principals. At the primary level in particular the number of reports received at the provincial level means that the officials there cannot possibly fully digest all the information they receive, or in particular react properly to it. A more viable alternative would be to require the school principal to submit less frequent but more detailed reports to the responsible district inspector, who in turn would have the responsibility for submitting a regular diagnostic report on his group of schools to the provincial level. Thus the district level would be made somewhat more important in the reporting process, but in particular the type of reporting would be modified to become more analytical, and the provincial officials should be somewhat freed from the burden of absorbing data to enable them to concentrate on policy initiatives in response to the evolving situations reported to them. This presupposes an effort to train school principals and district inspectors in analytical report-writing if it is to be successful.

In summary, the Sudan has a system of educational organisation and administration which is dynamically conceived but it may well be suspected that the dynamism of the educational system implicit in the government's targets for expansion of enrolments is likely to outrun the organisational and administrative capacity currently available, unless continuing efforts are made to improve the machinery. In particular, supply constraints, whether of teachers, or materials and equipment, or any other inputs into education, are likely to appear with increasing frequency. Recommendations for changes in the existing organisation of education at the local level can thus be of two types - minor modifications in existing structures and procedures designed to increase the efficiency of current arrangements, and more fundamental changes relevant to the effective handling of a larger and more widely disseminated educational system catering to diverse local needs. In the former instance, consciousness of the financial constraints under which the Sudanese government must increasingly operate requires that proposals should as far as possible

be cost-saving, in order to permit new directions of expenditure where appropriate without greatly increasing the total amount of resources devoted to education.

B. DETAILED OBSERVATIONS

- (i) The amount of statistical reporting which schools have to undertake monthly to the provincial office and more occasionally to the district office seems substantial. Would the efficiency of administration be seriously reduced if, say, the school reported through the district office a month after the beginning and at the end of each term only? It would also seem desirable that more attention should be given to the instructions sent to schools for report-making from the Provincial Offices: these might be clearer and more helpful to headmasters.
- (ii) The role of the Parents' Councils should be investigated to see if there is scope for the members to be more active in conjunction with the running of the school, e.g. in organising school activities, assisting in the provision of materials and equipment. Could mothers play a more active role in some of these respects? In this connection the possibility of linking the work of female literacy classes more closely to the development of the schools in which they are located deserves to be investigated.
- (iii) The existing system of having both technical and administrative inspectors responsible for a large number of schools involves duplication of effort. It would be operationally simpler to have only one type of inspector responsible for both pedagogical and logistic aspects of school operation, and to make him or her wholly responsible for all aspects of the running of a smaller group of schools in close proximity to one another, thus facilitating transport arrangements. The pedagogical aspects of their work could be further assisted by principals and experienced teachers.
- (iv) The role of the inspectorate needs to be reviewed to see how far they can be made more active in efforts to raise the quality of education at the level of individual schools. Additional training for inspectors, using imported trainers where necessary, should be developed. This training should include pedagogy, educational psychology, leadership and analytical report-writing. Also, the provision of adequate means of transport, in particular for those inspectors responsible for remotely-located schools, is essential if they are to effectively oversee and stimulate the functioning of such schools.
- (v) The practice of restricting inspection of female teachers to female inspectors, and male teachers to male inspectors,

- should be discontinued. It makes for duplication of inspection visits. An inspector should be competent to inspect any teacher in the schools under his supervision.
- (vi) The provision of good quality housing (according to local standards) for teachers, against payment of a reasonable rent, should be mandatory in remote rural areas.
 - (vii) Consideration should be given to the extension of the existing in-service training facilities to untrained intermediate teachers so as to use available intermediate inspectors more fully.
 - (viii) The extent to which localisation of appointments and transfers of teachers within the district can be achieved deserves investigation, for reasons both of improved morale and reduction of expenditure on travel of teachers and their families.
 - (ix) Further investigation is desirable into ways of ensuring that teachers improving their qualifications continue their careers within the same level of education and make a maximum contribution to the improvement of its quality. This is especially applicable to the primary and intermediate levels.
 - (x) At present the ratio of teachers to classes appears rather generous, while the size of classes tends to be too large. (In this context the teacher-pupil ratio distorts the classroom realities.) The extent to which teachers can teach more but smaller classes without impairing their lesson preparation, marking, etc., needs to be investigated.
 - (xi) The greatest possible efforts should be made to reduce the use of boarding facilities, which unduly increase educational costs. The initial effort should be at the primary level but the possibilities at the intermediate level also need to be explored and may be more fruitful. There should be a detailed analysis of the comparative costs of alternatives, e.g. bus and other transport, mobile schools.
 - (xii) The extent of reliance on communities to provide resources for education needs to be reconsidered in relation to the poorest areas. There it has a discriminating effect, as these areas do not have the means to balance the government's contribution, so end up with poorer or fewer facilities. The possibility of additional provincial subsidies in such instances needs to be explored.
 - (xiii) The procedure of distributing imported educational materials directly from Port Sudan, rather than after transshipment in Khartoum, should be encouraged. It should speed up distribution and possibly slightly reduce its costs.
 - (xiv) A Gardening and Nutrition Centre should be established in New Halfa to stimulate the cultivation of school gardens,

- which at present exist at only three schools (Villages 7, 18 and 33) and the teaching of better nutritional practices.
- (xv) School and student record cards should be introduced as quickly as possible to facilitate the maintenance of accurate records at all levels of administration.
 - (xvi) The district inspectors should investigate the respective advantages and disadvantages of extra streaming or double shifting in those schools which are subject to growing pressure of enrolments on their existing facilities. This should be done on a case by case basis, taking account of local population trends.
 - (xvii) It is desirable that more schools in the district should have their own libraries. The arrangement in one local primary school where pupils make small regular contributions towards the purchase of library books needs to be publicised and if possible emulated.

C. GENERAL OBSERVATIONS

As has been shown in this study, the diversity of socio-economic situations within the New Halfa district is not reflected by any adaptation of education to match local circumstances. The pressure to increase the national provision of education, and the increasing resource constraints which go with it, are conducive to the supply of a universal minimum package on the widest possible scale. This also coincides with the common need for certain basic skills as a foundation for any further education.

But if it is hoped to make education more of a tool for national, local and personal development, then thought needs to be given to the possibilities of local diversification of the content of education, beyond the common core, to adapt it to local needs. Since the majority of children will continue to receive no more than a primary education for many years to come, the feasibility of this suggestion needs to be explored in relation to primary education in the first instance. For example, religion, Arabic and mathematics, might be treated as the basic subjects, while science, geography and rural education could be "local" subjects, with flexibility of curricula in relation to various environments. Whether the various curricula in these subjects should continue to be prepared nationally or whether provincial educational staff should have a role to play is a matter for further discussion. Of course these subjects should be equally important in the primary leaving examination to reduce the possibility of their being neglected.

The implementation of any such modifications to the system of primary education implies an increased role for local officials, in particular the inspectors who might have to decide which "local" curricula were most applicable for each school in their area and

also have to assist in the implementation of such measures at the school level. It also implies the desirability of having teachers of local origin as far as possible, who would be familiar with the subject matter of such "local" curricula. Of course, local inspectors must be given the additional training and means of transport necessary to implement these tasks. The possibilities for Parents' Councils to assist in the "localisation" of education must also be explored.

This suggestion might appear premature in the light of the existing constraints on the expansion of primary education, but if the concern is to do more than the minimum for each child, then some further investigation along the lines proposed would appear merited. The concern should be not just to get as many children as possible to school, but also with the extent to which they profit from the experience.

Bibliography

- Abel Rahan E. Ali Taba, "Sudanese Development Path" in Damachi U.G. et al, *Development Paths in Africa and China*, London. 1976, pp. 112 - 35.
- Blakely E.G. & Hess C.E., "Designing a National System for Development: the Sudanese Experiment", *Educational Planning*, Vol. 3, No. 2, October 1976, pp. 80 - 89.
- El Haggaz H.M. & Garvey Williams F.T., "Community Participation in the Provision of School Facilities in Sudan" in Unesco, Division of Educational Policy and Planning, Report C.61, Paris, 1978.
- Faaland J., "Growth Employment and Equity", *International Labour Review*, Vol. 114, No. 1, July - August 1976, pp. 1 - 10.
- Griffiths V.L., *Teacher-Centred: Quality in Sudan Primary Education 1930 to 1970*, London, 1975.
- Hoyle S., "The Khashm el Girba Agricultural Scheme: an Example of an Attempt to Settle Nomads" in O'Keefe & Wisner (eds.), *Land Use and Development*, London 1977.
- International Labour Office, *Growth, Employment and Equity*, (Report of the Comprehensive Employment Mission 1975), ILO, Geneva, 1976.
- Lees F.A. & Brooks H.C., *The Economic and Political Development of the Sudan*, London 1977.
- The Middle East and North Africa, 1977 - 78*, London, 1977.
- Moulton J., "An Outline of the Educational System in Sudan", Unesco, Division of Educational Policy and Planning, Report C.8., Paris, 1976.
- Sorbo G.M., *How to Survive Development: the Story of New Halfa*, Khartoum Development Studies and Research Centre, 1977, Monograph Series No. 6.
- Sorbo G.M., "Nomads on the Scheme - a Study of Irrigation Agriculture and Pastoralism in Eastern Sudan" in O'Keefe & Wisner (eds.), op. cit., London, 1977.
- Sorbo G.M., *Scheme and Off-Scheme Interests: a Study of Nubian Resettlement in the Sudan*, Thesis, University of Bergen, 1973.

The New Halfa District of the Sudan

- Sudan Department of Statistics, Population Census Office, *Second Population Census, April 1973, Kassala Province, Khartoum*, no date.
- Sudan Demographic and Manpower Committee, *Population Projections for the Six Year Plan 1977/8 - 1982/3*, Khartoum, no date.
- Sudan Government of *Special Legislative Supplement to the Democratic Republic of the Sudan Gazette No. 1177*, Khartoum, 13 July, 1975.
- Sudan Ministry of Youth and Sports, *The Youth Training Programme*, Khartoum, no date.
- Sudan Ministry of Education, *The New Educational Policy*, Khartoum, May, 1970.
- Sudan Ministry of Education, *Sudarese Education: an Appraisal and a Strategy for Action*, Khartoum, 1977.
- Sudan Ministry of National Planning, *The Six Year Plan of Economic and Social Development 1977/78 - 1982/83*, (2 vols.), Khartoum 1977.
- Sudan Ministry of National Planning and Ministry of Education, *Survey of Educational Expenditure on Public Education in Selected Provinces*, Khartoum, October, 1978.

Appendix

Democratic Republic of Sudan
Ministry of Education
Provincial Education Office
Kassala

Assistant Commissioner
10 June, 1976.

Addressed to all headmasters and mistresses of general education schools.

We attach herewith a model of the school monthly report, in the hope that it will help you in preparing your next monthly report. This report is based on the latest Ministerial letter. It reflects a clear picture of activities in schools and helps us in solving educational problems.

The monthly report should be sent direct to the provincial education office for the attention of the chief educational inspector with a copy to the Council inspector. We feel that it constitutes a good link between you and us and it is set out in statistical tables which will help in collecting the data for the whole year which we need to send to headquarters, Khartoum, for their further use. A statistical officer will follow up this matter with you and your assistance and help in sending this monthly report in time will be appreciated.

Finally, we have to inform you that we are going to establish a record on individual schools, which aims to reflect all activities and give full information about schools and teachers, in the hope that we can thus further develop our educational system. In this connection a joint team of technical advisors and educational inspectors will visit you to obtain more information.

(Signed) Omran el-Agib
for Assistant Commissioner for Education
Kassala

The New Halfa District of the Sudan

General Notes:

- Mention in each monthly report what activities are being carried out in the school and the aims of visits.
- State the names of teachers who did not receive their salaries (because of delay of the last pay certificate), promotions and allowances, with an explanatory note about all these matters.
- Give brief notes on:
 - . Advantages and disadvantages of this monthly report and any suggested changes.
 - . Social and cultural clubs of teachers and how they are utilised for education.
 - . Number of school farms and cooperative societies, and how teachers and students make use of them.
 - . Number of teachers who did other work in the holiday.
 - . Time-table for each teacher in all classes.
 - . Any difficulties you face in running the school (building, furniture, etc.)

Losses of Lesson Time

Teacher	Sick Report	Permission	Absence	Political duty	Union duty	Pregnancy leave	Normal reason	Other reasons	Refresher course	Resignation	Refusal of transfer	Courses abroad	Shortage

N.B. You need not copy this table, just put the items you actually have, e.g.

Mohed Ali 5 days (sick report) x 4 periods = 20 periods
 Fatma Hassan 7 days (local leave) x 3 periods = 21 periods
 Total = 41 periods

Rule Number of days absence x number of periods. The teacher may make up some of the periods missed but this should be mentioned.

Non-Teaching Staff		Teaching Staff			
Farrash Guard Cook Asst. Cook Waiter Gardener Water carrier Sanitation worker Awassa*		Head- master	Asst. Head- masters	Teach- ers	Total
		Trained Untrained	Trained Untrained	Trained Untrained	Trained Untrained

*Awassa: an old woman who makes the native bread (Kisera)

School Health

Class	1st	2nd	3rd	4th	5th	6th	Total
Clinical Visits							
Admittance to Hospital							

N.B. Refer to monthly record and state diseases

Month School
 Boarders Day pupils
 Days

Supplies and consumption

	Milk	Cheese	Sardines	Beans	Cooking butter
Amount left in store					
last month					
Supplies for this month					
Total					
Amount consumed this					
month					
Amount condemned this					
month					
Total					
Amount remaining at					
end of month					

Pupils

	1st	2nd	3 rd	4 th	5 th	6 th	Total	
	B	G	B	G	B	G	B	G
Record beginning of month								
Transfer to school								
Record end of month								
Dismissals								
Failure in exam.								
Transfer from school								
(within Province)								
Transfer from school								
(outside Province)								
Drop-outs								
Reasons								
Total								
Sudanese								
Foreigners								
Nationality								

N.B. Use this table as sample and formulate data as follows:

	1	2	3	4	5	6
Transfer from school	2	1	-	3	1	2
Drop-outs	-	1	-	1	-	7
Total	2	2	-	4	1	9

IIEP publications and documents

More than 450 titles on all aspects of educational planning have been published by the International Institute for Educational Planning. A comprehensive catalogue, giving details of their availability, includes research reports, case studies, seminar documents, training materials, occasional papers and reference books in the following subject categories:

Economics of education, costs and financing

Manpower and employment

Demographic studies

The location of schools and sub-national planning

Administration and management

Curriculum development and evaluation

Educational technology

Primary, secondary and higher education

Vocational and technical education

Non-formal, out-of-school, adult and rural education

Copies of the catalogue may be obtained from the IIEP on request.

International Institute for Educational Planning

The International Institute for Educational Planning (IIEP) is an international centre for advanced training and research in the field of educational planning. It was established by Unesco in 1963 and is financed by Unesco and by voluntary contributions from individual Member States.

The Institute's aim is to contribute to the development of education throughout the world by expanding both knowledge and the supply of competent professionals in the field of educational planning. In this endeavour the Institute co-operates with interested training and research organizations in Member States. The Governing Board of the IIEP, which approves the Institute's programme and budget, consists of eight elected members and four members designated by the United Nations Organization and certain of its specialized agencies and institutes.

Chairman Malcom Adiseshiah (India), Vice-Chancellor, University of Madras;
Director, Institute of Development Studies, Madras

Designated members Samir Amin, Director of Research, CODESRIA, Dakar
P.N. Dhar, Assistant Secretary-General for Research and Analysis,
United Nations
T. Fülöp, Director, Division of Health Manpower Development,
World Health Organization
Aklilu Habte, Director, Education Department, International Bank
for Reconstruction and Development

Elected members Candido Mendes de Almeida (Brazil), Director, President of
Foundation Sociedade Brasileira de Instrução, Rio de Janeiro
Jean-Claude Eicher (France), Director, Institute for Research
in the Economics of Education, University of Dijon
M.A. El-Rashid (Saudi Arabia), Director, Arab Bureau of Edu-
cation and Culture for Gulf States, Riyadh
Michael Kinunda (Tanzania), Chief Administrative Officer,
University of Dar-es-Salaam
Sippanondha Ketudat (Thailand), Minister of Education, Bangkok
Jan Szczepanski (Poland), Vice-President, Polish Academy of
Sciences
Victor Urquidí (Mexico), Presidente, El Colegio de México, Mexico

Inquiries about the Institute should be addressed to:
The Director, IIEP, 7-9 rue Eugène-Delacroix, 75016 Paris

This report examines the methods and the problems of organising formal and non-formal education in rural areas, through the findings of two studies carried out in Nepal and Sudan. The issues involved in the formulation and implementation of local plans, and the respective rôles of the national and district authorities, the community and the school, are discussed as aspects of a decentralised approach to the management of education.

The report illustrates the need for the district level of educational administrative systems to play a more active part in the elaboration of programmes adapted closely to local needs, leading to increased relevance of the overall educational system.

